



1932

Our California bird friends

Allen Keim
University of the Pacific

Follow this and additional works at: https://scholarlycommons.pacific.edu/uop_etds



Part of the [Education Commons](#)

Recommended Citation

Keim, Allen. (1932). *Our California bird friends*. University of the Pacific, Thesis.
https://scholarlycommons.pacific.edu/uop_etds/929

This Thesis is brought to you for free and open access by the Graduate School at Scholarly Commons. It has been accepted for inclusion in University of the Pacific Theses and Dissertations by an authorized administrator of Scholarly Commons. For more information, please contact mgibney@pacific.edu.

OUR
CALIFORNIA BIRD FRIENDS

By

Allen Keim

April 30, 1932

A Thesis
Submitted to the Department of Education
College of the Pacific

In partial fulfillment
of the
Requirements for the
Degree of Master of Arts

APPROVED:

J. William Harris

Head of the Department

DEPOSITED IN THE COLLEGE LIBRARY:

Harriet E. Boss

Librarian

Dated: *May 31, 1932*

To my wife

Whose aid has been untiring

This book is dedicated

ACKNOWLEDGMENTS

I wish to express my grateful appreciation to Dr. Glenn R. Pease, Professor of Education, for his invaluable help in preparing this thesis. To Mrs. Marion Pease, Assistant Professor of Education, and to Dr. J. William Harris, Dean of the School of Education, I wish to add my thanks for their suggestions and criticisms.

I am indebted to Dr. Joseph Grinnell, Director of the Museum of Zoology of the University of California, and the California Fish and Game Commission for their kind permission to use a selected group of photographs.

To my friends, Mrs. Mildred Bowers, for her work in coloring the photographs, and Mrs. Margaret Huss, for her pen and ink sketches, I desire to express my deep appreciation.

CONTENTS

Chapter	Page
Introduction	
1. California's Bird	1
2. The Fairy in the Garden	6
3. Happy Pig Beak	11
4. California Sea Flyers	17
5. The Drummer of the Forest	24
6. The Mischief Maker	28
7. The Western Songster	34
8. The Busy Wren	39
9. The Practical Joker	45
10. The Bold, Black Robber	50
11. Soldiers of the Marshes	55
12. The Wise Old Bird	62
13. House Hunting	67
14. Yellow Bill, the Chatterbox	72
15. The Tiny Acrobat	77
16. The Mud Plasterers	82
17. Our Early Visitor	86
18. The Expert Builders	91
19. The Bird Duet	95
20. Bird Homes	101
Bibliography	105

INTRODUCTION

viii

Our California Bird Friends is an attempt to interest children in birds, by presenting a group of factual stories describing the habits and characteristics, the courage and cleverness of various birds. It is hoped that it will fill a definite need in nature study. The stories are limited to proven facts, presented in a manner which the elementary school child of the fourth, fifth, and sixth grades may readily read and understand.

The stories are intended as a supplementary book in nature study. It is suggested that the teacher use them as the basis for general class discussion. Excellent results may be obtained when each story is read orally, either by teacher or pupil. It should be followed by a general class discussion wherein the children relate their personal experiences with birds. The stories may be correlated readily with art, by using them as the basis for pictorial composition.

The element of reality in the thesis is greatly enhanced by the nature of the illustrations, which are photographs and sketches of real birds in true-to-fact situations.

It is hoped that the thesis will be found valuable either for oral or silent reading. The stories are intended to stimulate oral reading, but are simple enough and of suitable length for rapid independent silent reading. The tests which follow the stories provide definite comprehensive checks.

California's Bird

"Get up now, get up now, get up now" - what is that? Is it a new alarm clock awakening us before sunrise? No, it is that early riser, the California valley quail. Looking quickly, we are just in time to see a family or covey of quail leaving their bedrooms in a tree. These birds spend the night in some bush or tree so that no fox or coyote will harm them while they sleep.

Upon awakening they fly to a nearby stream for a drink. Now they must hunt their breakfast. Whenever this family goes in search of food, they are being of service to the farmer. If it is spring, they hunt for insects. Grasshoppers, potato bugs, ants, and spiders are all delicious food for the quail. In autumn and winter they eat the seeds of many harmful weeds.

During the warm afternoons the covey takes a nap. Then they make another search for food. After dinner they have the dust bath which all birds love. As the sun is setting we hear the father calling, "Come here, come here, come here," and off they scamper down to the stream for a last drink before bed.

Let us take one last look at this family before they go to bed in the top branches of the oak tree. The father has on a coat of olive brown and gray. On his throat is a black scarf outlined with white. Upon his brown head is a



California's bird - the Valley Quail

beautiful helmet of black plumes. The mother wears a light olive brown dress streaked with white. She has a smaller plume on her brown hat.

In the spring this family breaks up, for the children are ready to make homes for themselves. Then we find the mother and father busily engaged in building a new nest. They are not good carpenters for their home is not well made. They scratch a small hole in the ground and line it with sticks and leaves. However, they are experts at hiding their little home in the shelter of weeds, thick grasses or fence corners. Each day mother quail lays an egg in the nest until there are thirteen or fourteen pointed, cream colored eggs speckled with golden brown.

In about three weeks mother and father quail have a large family of babies. And what cute and lively little babies they are, little balls of fluffy brown feathers, just the color of the earth! As soon as they are born, they scamper here and there in search of their proud parents. Father and mother are kept very busy searching for fat spiders, ants, and grasshoppers with which to feed their babies.

These baby quail are very obedient. As soon as they are born they are taught to listen for their father's whistle which tells them danger is near. They squat down on the ground and close their eyes at the first danger signal. Their coloring is so like the soil that they cannot be seen when they are still. They do not move until they hear the call, "Where are you, where are you, where are you," and



The quail are experts at hiding their nest.

then they scamper to their parents.

In the fall when the babies are old enough to go to school, several families unite into a large covey. One father is chosen as the leader and watchman. He sits on the top of a bush or tree ready to give the warning signal at approaching danger. The others are busy chattering among themselves as they hunt for seeds. Suddenly the leader gives the danger signal. Abruptly the chattering stops, and the covey flies to safety.

Draw a line under the correct answer.

1. The valley quail gets up late. Yes. No.
2. The quail is the farmers' helper. Yes. No.
3. The father quail has a blue coat. Yes. No.
4. The quail builds his nest in trees. Yes. No.
5. The mother quail lays as many as fourteen eggs. Yes. No.
6. The baby quail lives on insects. Yes. No.
7. The quail hides his nest very carefully. Yes. No.
8. The baby quail does not obey his father. Yes. No.

The Fairy In The Garden

Do you know that among the birds there is one who looks like a fairy and yet at times acts like a bad elf? Yes, indeed, and his name is Anna Hummingbird. Surely no fairy has a more beautiful coat, green and gold as he flies about in the sunshine. His lovely head is red. When he finally comes to rest on a twig, we see that his wings and tail are dark purple. Mrs. Hummer is not dressed as gaily as her husband, for she wears only purple and green colors.

Like a fairy this tiniest of birds darts in and out of flowers, drinking deep of their honey. He has the wonderful power, which no other bird has, of flying backwards as well as forwards. Indeed there is no finer bird aviator than this wee little bird only three inches long.

When we first see him we think what a lovely, good little fairy he is. But as we get to know him better, we find that he very often acts like a cross, bad, little elf. Let's watch him as he flies around hunting his dinner. He eats honey, and tiny spiders and flies. As he is drinking the honey from a flower, he notices a little bumble bee buzzing around on the other side of the garden. Over the hummingbird darts with angry cries, driving the poor little bee away. Then into the garden comes a sparrow. Again this cross little elf darts at it and forces the sparrow



Mr. Anna Hummingbird

to leave the garden. The hummingbird has a very long, sharp beak, so all the larger birds are afraid of him. Only the woodpecker is not frightened.

Early in March, if the weather is warm, Mr. and Mrs. Hummingbird decide that they will raise a family. They are among the first birds to nest in California. Mr. Hummer, the lazy bird, again shows that he is a bad elf, for instead of helping his wife build the nest he flies off to waste his time in the sunshine.

Let's watch Mrs. Anna as she builds her dainty nest. She chooses a branch of a tree, usually an apple or a shade tree and builds her nest so that it will look like a knot on the branch. She spreads a layer of cobwebs over the limb. Soft leaves and seeds are gathered for the nest. Then, using her beak as a needle, she binds them together with cobwebs into a tiny cup shape. The outside is covered with moss.

A few days later we steal over for a look at her nest and see two little white eggs about the size of beans. At the end of two weeks we again visit the tree and this time see two wee babies. They are covered with soft down and look like baby bumble bees. Of course, like all baby birds they are always hungry. Soon mother arrives with food, insects and honey, for them. She puts her beak way down their throats and drops in the food.



The baby hummers waiting for food.

A week after they are born these two babies are quite grown. They have pushed the sides of the tiny nest out until it looks more like a saucer than a cup. In one more week they will fly for the first time. Then, without even a good-bye to their mother, they fly far away.

Complete the following sentences, filling in the blanks.

1. The Anna Hummingbird is often seen in the _____.
2. The Anna Hummingbird is _____ inches long.
3. Mr. Hummer often acts like a bad _____.
4. The hummingbird has a long, sharp _____.
5. In the nest there are usually _____ eggs.
6. The nest is made of leaves and _____.
7. In two weeks the baby birds can _____.
8. The hummingbird wears a coat of _____ colored feathers.
9. Only the _____ is not afraid of the hummingbird.
10. The nest is built on the _____ of a tree.

Happy Big Beak

"Big Beak" is a nickname we have given to our yearly visitor, the black headed grosbeak. Grosbeak is really a combination of two words: gross, which means large or big, and beak. So let's call this black-headed, jolly fellow, who visits us each year from April to September, "Big Beak."

When you see Big Beak you will understand why he has been given this name. He has a large beak which looks like a huge nose. In fact his beak is so large that it almost covers his whole face. Mr. Big Beak likes bright colors. He always looks bright and gay in his orange vest, black and white suit, and black cap. A strange thing about Big Beak is that he also wears bright yellow feathers, which he keeps hidden part of the time. Where do you suppose he hides these yellow feathers? Why, of course, I knew you would guess it, under his wings. He has a bright yellow lining for his black wings. When you see a black-headed grosbeak be sure to watch him fly, so that you, too, will see those bright yellow feathers.

Mrs. Big Beak is very modest and quiet beside her husband. Her clothes are not color fast. They have been faded in the bright sun. Her head, back, and wings are dull black streaked with white. She has one color that is not faded, and that is the yellow lining of her wings.

Big Beak is a very happy fellow. He sings and sings.



Mr. Happy Big Beak

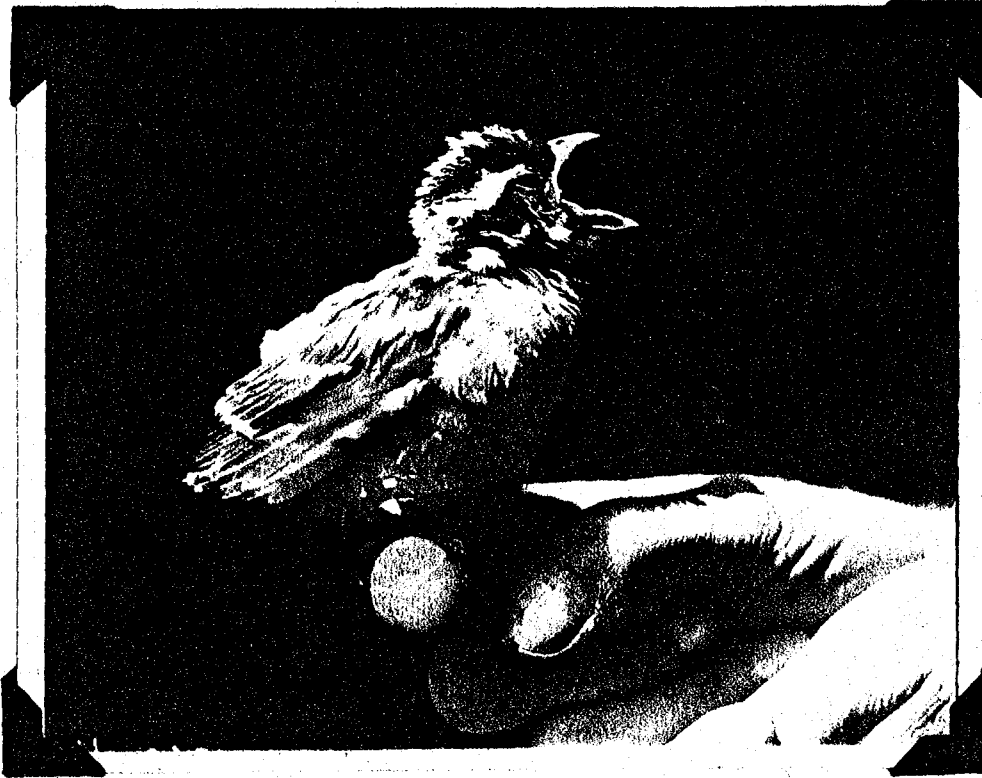
He even sings at his work. Chasing beetles, moths, and scale insects is really very hard work, yet Big Beak is always happy and cheerful. Sometimes when he gets very tired, he will fly into an orchard and get a quick lunch in a cherry or fig tree. But his real work is catching harmful bugs. When he works hard, he saves the farmer many dollars each year. So that really the farmer should not mind giving him an occasional free lunch in his orchard.

Even though Mrs. Grosbeak is not beautiful, Big Beak is very proud and happy with her. He really thinks that he does most of the work in building their nest. However, most of the time, he sits around and sings to her while she does the work.

Every year Mr. and Mrs. Grosbeak come back to the same locality to build their nest. They place their nest in a small tree or thicket, usually about ten feet from the ground. Their home is thinly made of small sticks and root-lets loosely woven into a shallow basket. The nest is often so loosely woven that when you stand beneath it, you can see the eggs within.

It is not because the grosbeaks are lazy fellows that they build their nests in this fashion. They come from the south where it is very warm and they are used to building their homes in this way, so that they will be cool as they sit on their eggs.

While Mrs. Grosbeak builds the nest, Big Beak brings



"Little Big Peak" far from home

her food. After the three or sometimes four bluish green eggs, spotted with olive green, are laid, Mr. and Mrs. Big Beak take turns caring for them. Big Beak sits on the nest while his wife takes a rest. When Mrs. Grosbeak cares for the eggs she is very quiet and careful. But when Big Beak sits on the nest, he loudly sings. He is so proud of those beautiful eggs that he tells the world about them.

If someone hears his song and comes to disturb the nest, Big Beak will bravely fight for his home. As he fights he utters the most pitiful cry. At his cry all the other birds rush to help him.

The three, or sometimes four, little grosbeaks look very much like their mother. They have dull black and white feathers and big noses and mouths. Big Beak works harder than ever, catching bugs and insects for his family. Every ten or fifteen minutes he will return to the nest with his big beak full of food. Even with food in his mouth he can sing. How eagerly those little "big beaks" listen for that song, for they know their handsome daddy is on his way home.

Matching test. See if you can find the right ending for the following sentences:

- | | |
|---------------------------------------|-------------------------------------|
| 1. Big Beak works very hard | loosely woven sticks
and roots. |
| 2. Their nest is made of | with bright yellow. |
| 3. While Big Beak sits on the
nest | catching beetles and
moths. |
| 4. The grosbeaks' eggs are | like their mother. |
| 5. Big Beak wears | April to September. |
| 6. The little grosbeaks look | colored bluish green. |
| 7. The grosbeaks visit us from | he loudly sings. |
| 8. The grosbeaks' wings are lined | orange, white, and
black colors. |

California Sea Flyers

What fun it is to walk up and down the deck of a boat and watch the most perfect flyers among our sea birds, the gulls! But it is even better sport to bring a crust of bread along. Then the air is filled with their cries of "Please, please, please," as they gather around. Gracefully some wheel and turn; others seem to stay motionless in the air watching every movement. As we throw a piece of bread into the air, all the gulls dart after it. One of the big gray and white birds catches it in mid air. With a quick toss of his head, the bread disappears and back he comes crying for more.

Every boy and girl in California knows the California gull. Even those who live away from the seacoast occasionally see Mr. and Mrs. Gull. During heavy sea storms these beautiful sea birds fly far inland for protection. Once having seen them, you never forget the graceful flight of the California gulls.

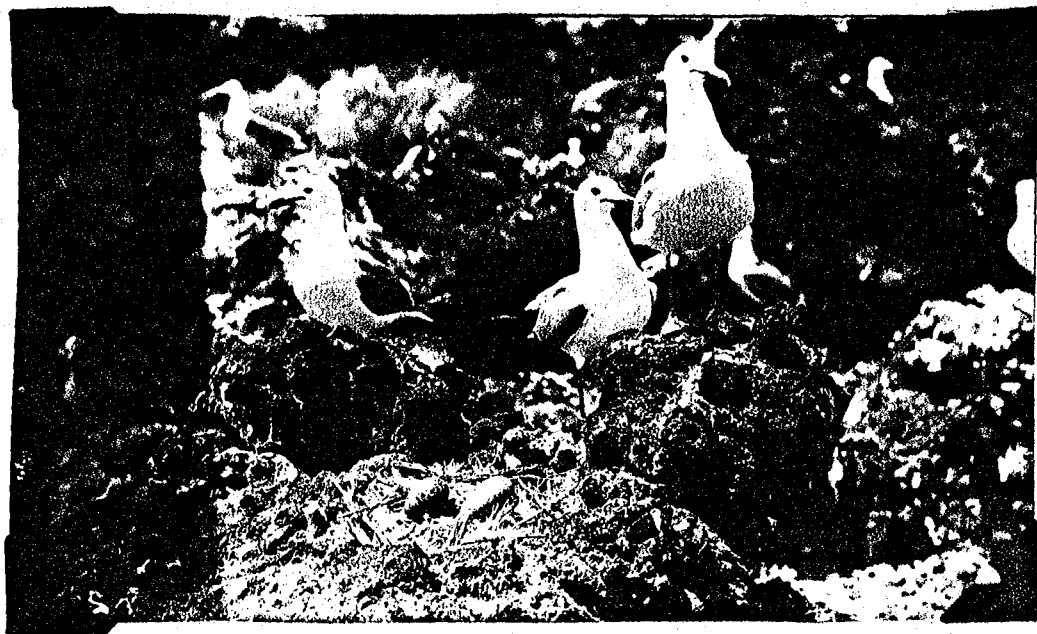
When they stop to take a rest, we see that Mr. and Mrs. Gull are dressed alike. They have two costumes, one for summer and one for winter. In summer, most of their feathers are snowy white, and oh, so soft. On their backs they wear a mantle of pearl gray. Their wings are gray tipped with black and white. During the winter their white and gray feathers are streaked with dull brown. Only their bills provide a bright note in their white, gray, and

black costume, for they are yellow with bands of black across them.

During April Mr. and Mrs. Gull usually decide to take a long trip. They join hundreds of their gull friends and fly many, many miles inland. Most of the California gulls travel each spring to Mono Lake, which is a very large lake eighty five square miles in extent. This lake is in the high mountains of eastern California. Some of the California gulls go to Lake Tahoe to nest. This year our particular friends, Mr. and Mrs. Gull, have decided on Mono Lake, because food is plentiful there. Millions of bugs swarm around and make fine eating.

Upon their arrival they eagerly search for a spot to build their home. Luckily they have arrived early, and so find an ideal spot on one of the islands in the lake. If they had delayed coming just one day more, this spot would surely have been taken, for each day thousands of gulls arrive, anxiously looking for nesting places. By the middle of April there are thousands of nests on this one small island. And what a hub-bub there is!

Living so close together seems to bring out all the mean traits of the gulls. They call every other gull, except their mate, thief, robber, and all sorts of terrible things. The air is full of their sharp, angry voices. We hate to admit it, but our special friends, Mr. and Mrs. Gull are just as mean to their neighbors as their neighbors are to them. For, once having found a lovely spot



Mr. and Mrs. Gull carefully guard their nest

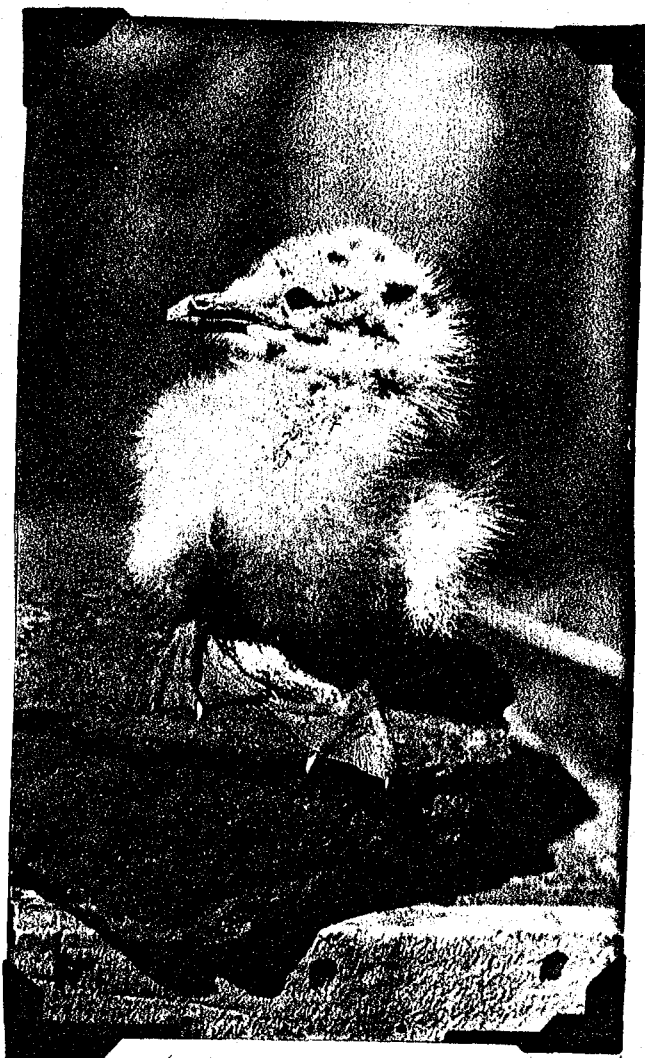
for their nest, they guard it jealously.

Their nest is built on the ground, but it is cozily placed between two large rocks. While Mr. Gull stays on guard, Mrs. Gull gathers twigs and feathers. Her nest is not well made, but Mrs. Gull seems very proud of it. Soon she has great reason to be proud, for there are two, or often three, pale olive eggs, spotted with brownish black, in her nest.

For three weeks the eggs are kept snug and warm under Mrs. Gull's soft white feathers. Then one day out from the shells come the cutest little fellows you ever saw. Little birds covered with fluffy white and black down, with big yellow beaks and gray webbed feet. As soon as they have hatched, they cry to be taken down to the water for a swim. Like the baby quail they will stand absolutely motionless when mother or father call out that danger is near.

The little gulls soon learn to fly as gracefully as their parents. When the little birds have become experts at flying, Mr. and Mrs. Gull start on their long trip back to the sea. Again they travel, this time westward, with hundreds of their friends, until they reach the ocean.

By this time the little gulls are dressed in brownish gray and white. Their wings and back are brownish gray and their chins and throats are dull white. Their bills are yellow, tipped with black. They dress in these



Baby Gull in search of adventure

colors until they are three years old. Then they wear summer and winter costumes exactly like those their mother and father wear.

Mr. and Mrs. Gull and their family are always hungry. They like to eat many different things. Often they go far out to sea searching for fish. The fishermen watch them closely, for gulls can see schools of fish from great distances. Once they have located them, they swirl and fly around in large numbers, diving for fish. Then the fishermen know that the fishing is good.

The Gull family is very fond of clams. When they see one, they eagerly seize it. Then away they go to a large rock, where they drop the clam, thus breaking its shell. Grubs and earthworms are also favorite foods.

Because they eat so many different things, the gulls are very valuable to us. They clean up our sea shores and beaches as thoroughly as if they were being paid to do the job. Even if they did not perform this service, we would love these sea flyers for their beauty and graceful flight.

Write true or false after each sentence:

1. The California gulls never leave the sea coast.
2. In the winter the gull's feathers are streaked with dull brown.
3. There are two or three pale olive colored eggs in the gull's nest.
4. The gulls build their nest high up in a tree.
5. Until they are three years old the little gulls dress in brownish gray and white.
6. The sea gulls eat nothing but fish.
7. While nesting the gulls are very peaceful and quiet.
8. The gulls help to keep our sea shores clean.

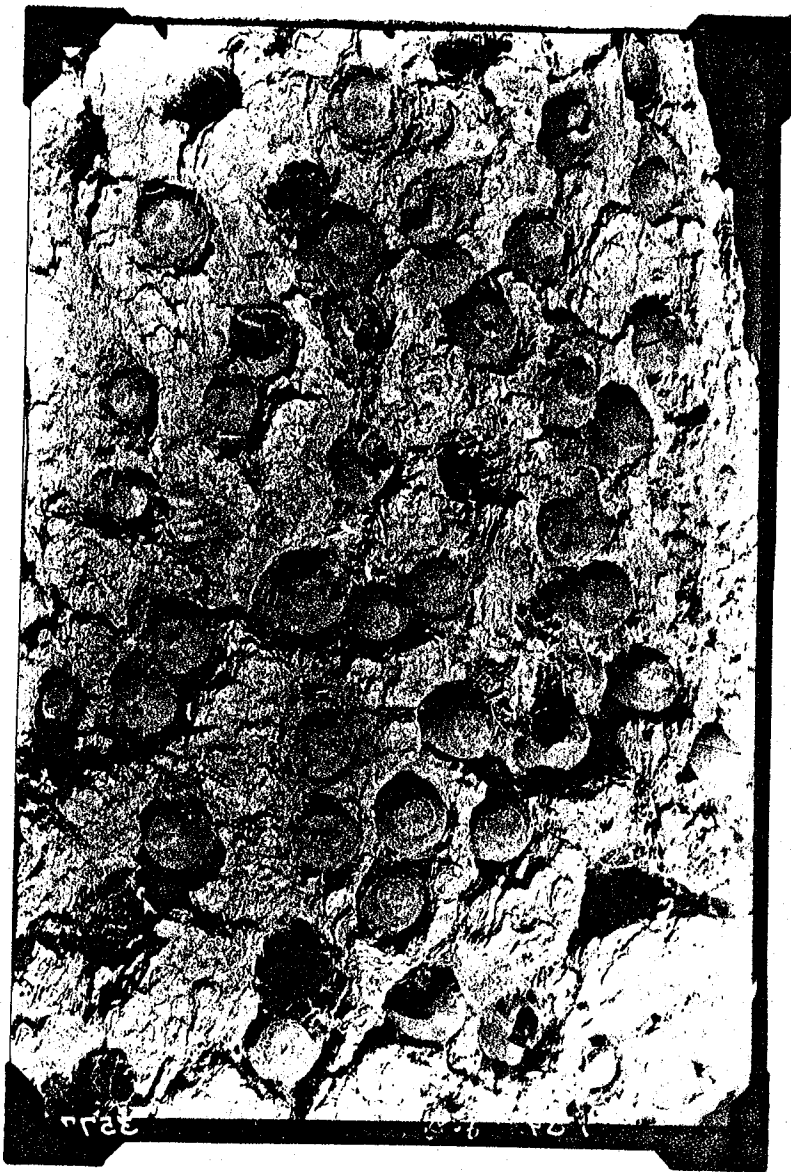
The Drummer of the Forest

Rat-a-tat-tat, rat-a-tat-tat beats the drummer of the forest as he signals to his friends in the nearby trees. Glancing upward, we see this spry little fellow playing hide and seek with his neighbors, quickly darting up and down and around the trunk of a tall tree. Seeing that we do not mean to harm him, he boldly walks around the tree, and we recognize him as our friend, the Downy Woodpecker. Often you can find six or seven woodpeckers deep in the forest enjoying a game of hide and seek in a tall pine tree.

When you see a bird clinging to the side of a tree "as if he had been thrown at it and stuck,"¹ you know it is a woodpecker. Downy has at least thirty-six varieties of cousins, but he can easily be recognized by his size, coloring, and friendliness. He is a little over six inches long, and is the smallest of the woodpecker family. Both Mr. and Mrs. Downy wear a black and white coat, with white bars on their black wings. Mr. Downy, looking very gay in his black cap trimmed in red, is always friendly and unafraid.

Although he is a playful little fellow, he is one of the hardest workers in birdland. He is the farmers' helper, working every day in the year and yet never asking for a pay day. All day long he works in the orchard, keeping a sharp eye on every tree. No ant or bug is safe while Mr.

¹ F. H. Eckstrom, The Woodpecker, 6.



Mrs. Downy's pantry

Downy is on guard. This little fellow, you see, lives on insects, ants, spiders, and beetles. In fact he eats all the things that hurt the trees. Mr. Downy also likes acorns very much. He gathers them in large numbers and stores them away in the dead trunk of a tree.

Downy often has to work very hard for his dinner. Rat-a-tat-tat we hear him hammering away, searching for little grubs that live deep in the bark of the tree. Suddenly all is quiet. Downy has heard a faint sound within the bark. His hammering again rings out clearly and sharply. Quickly his little sharp pointed tongue, which has barbs on each side, darts out and he pierces the grub. Then what a good meal, good for both friend Downy and the tree, because the grub if left there would finally kill the tree.

Downy does not have a musical song as most birds have. He shows that he is happy by drumming on a hollow log. Often he is heard drumming away, keeping time while his little friends, the chickadees, furnish the music.

Mr. and Mrs. Downy have a very cozy little home deep in the heart of a dead tree. Before building, they very carefully select a tree which has been dead just long enough to become soft and brittle. When they find such a tree, they take turns in drilling a hole and carrying out the chips. First Mr. Downy will work until he is tired. Then, flying to the upper limbs of the tree, he gives a loud call and Mrs. Downy, hearing him, comes home and gets to work. They drill straight in for a few inches and then

drill downward until they have made a hole perfectly round and smooth. To make a soft and warm bed for the four little eggs, they drop small chips to the bottom of the hole.

Thus the little woodpeckers, when they break through their shells, have a warm home, well protected from their enemies. They are very ugly little birdies. When left alone in the nest, they make a noise like the hissing of snakes. In two weeks they are well feathered and ready to leave their home to carry on the good work of their parents, the Downy Woodpeckers.

Choose the right answer.

1. The Downy Woodpecker is very helpful
 - a. Because he drills holes in dead trees.
 - b. Because he eats harmful insects.
2. The woodpecker builds his nest in the trunk of a tree
 - a. Because he likes to drill holes.
 - b. Because the nest is protected from enemies.
3. The Downy Woodpecker is different from his cousins
 - a. Because he is only six inches long.
 - b. Because he drums on trees.
4. We all love the Downy Woodpecker
 - a. Because he is playful and friendly.
 - b. Because he has a beautiful song.
5. Choose three things the Downy eats:
 - a. Acorns. b. Leaves. c. Ants. d. Spiders.
 - e. Pine cones. f. Butterflies.

The Mischief Maker

A group of sparrows and robins are holding a meeting in a clearing among the oak trees. They are searching for food. Suddenly with a loud cry, "Jayick, jayick," a blue and gray bird darts upon them, frightening the little fellows away. It is that mischief maker, the blue jay, who takes great delight in frightening other birds. He has named himself, as his most common cry is "Jayick, jayick."

This little rascal, who spends so much time teasing others, is really a very lovely bird. He looks very gay in his blue and gray feathers. His head, wings, and tail are blue, and his breast and back are gray. He is a little larger than the robin, being eleven inches in length.

The jay is one of our most lively birds. He is very seldom quiet a moment. Back and forth he goes from one oak tree to another, uttering his shrill, harsh cry. Only during the nesting season is he quiet. Then he sits on a high post or tree top and looks all over the country. He seems to know everything that is taking place.

Why is it that when the jay tries to join a group of other birds they all hurry away from him calling, "Thief, thief?" The little birds have many good reasons for acting in this manner. The blue jay is one of their worst enemies. He looks and looks for their nest. Once he has located it, he hides nearby waiting for the mother and father birds to leave their home for food. As soon as they



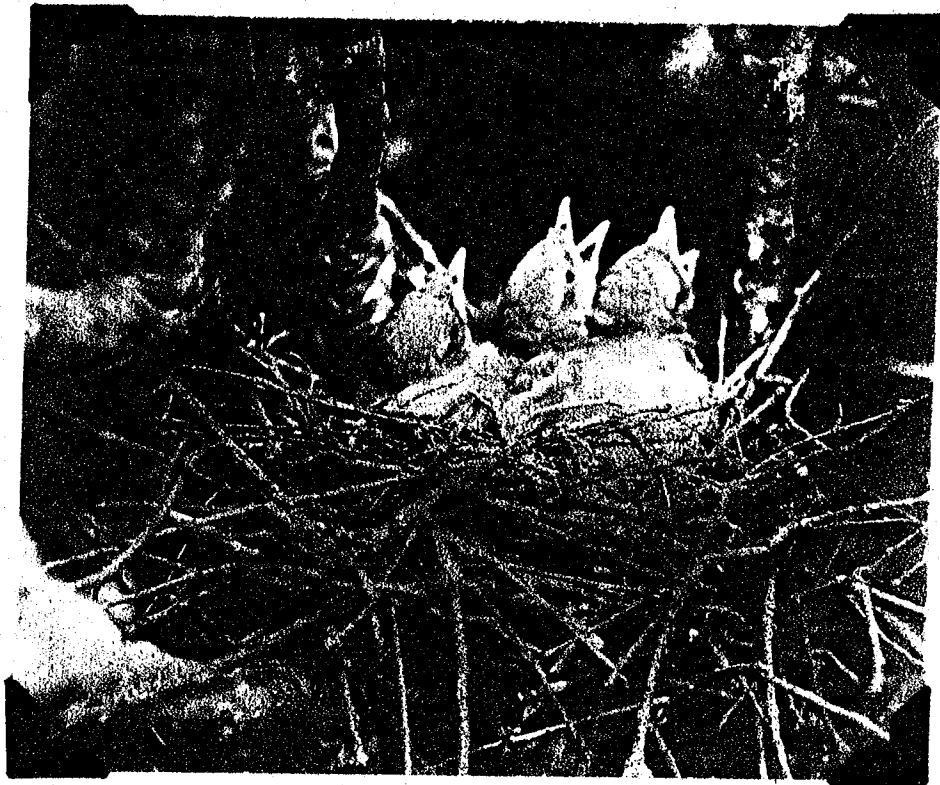
That mischief maker, the blue jay

have gone, he sneaks up and eats the eggs. If there are young birds in the nest he kills and eats them. If the other birds realize their danger and move their eggs, he tears the empty nest to pieces in disgust.

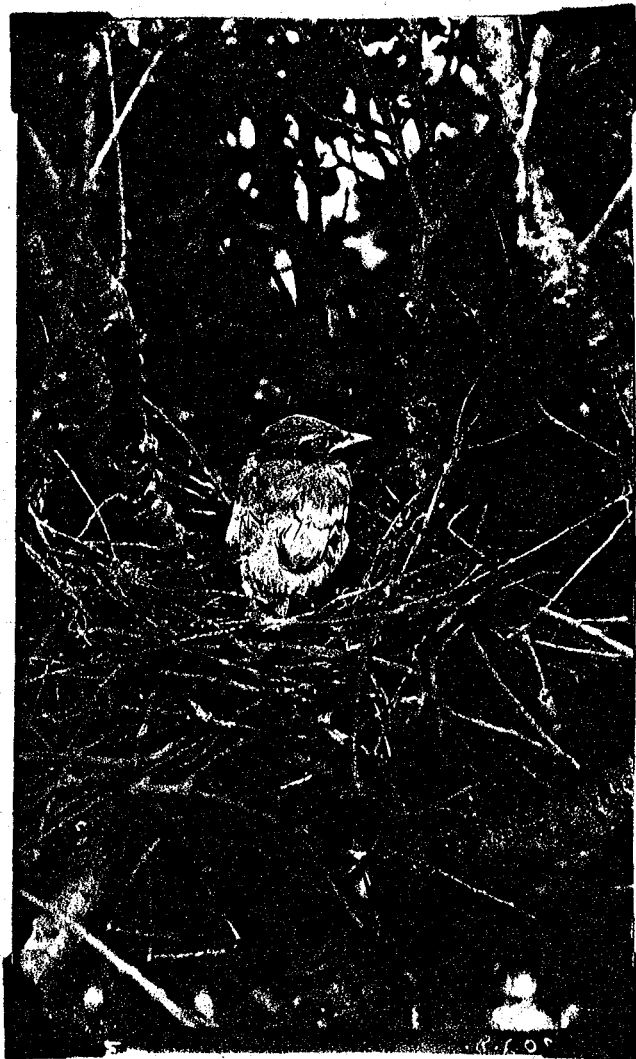
When the jays are raising their own family they are ideal parents, always taking very good care of their babies. In fact they are such proud parents that it is hard for us to realize that at other times they are destructive and mean birds.

The jays usually build their nest in an oak tree. Their nests are roughly made by criss crossing long twigs to form the bottom of the nest. On this foundation they thread very small roots until they have a cup-shaped home. Mother jay they flies to a nearby pasture where she has located some horse hair. She makes many trips from the pasture to the nest carrying long pieces of horse hair with which she lines the new nest. This makes a soft mattress for the eggs. There are usually four or six pale green eggs spotted with dark olive green.

Although the jay should be content with his proper foods, which are acorns, insects, and wild berries, he loves to destroy. He will strip an almond tree, taking all the nuts. Those he cannot eat he lets rot. He does a great deal of damage to the farmers' chickens. In a tree close to the hen house he waits. Hearing the hen's cackle, which tells of a newly laid egg, he darts in and seizes the egg. He also kills young chicks so that he or his babies may have a meal.



Three hungry mouths to feed



The last one to leave home

Like all other thieves and bullies, the blue jay is a coward. When a little bird, whose nest he has robbed, attacks him he flies off crying out in terror. Because of his mean deeds, he leads a lonely life. His only friends are the other jays.

Write yes or no after the following sentences:

1. The blue jay is a thief and mischief maker.
2. The robin is larger than the jay.
3. All of the other birds love the blue jay.
4. The jay is a great help to the farmer.
5. The blue jay often eats other birds' eggs.
6. Mr. and Mrs. Blue Jay are very kind to their babies.
7. In the jay's nest there are usually four to six pale green eggs.
8. The blue jay is very brave.

The Western Songster

Like all great singers, the western meadowlark, wants attention when he performs. He usually mounts the highest post and, throwing his head upward, pours out his sweet and lovely song.

This lark of the meadows is just as beautiful as his song. He wears a brownish black coat, streaked with white. His proudest possessions are his bright yellow vest and the black necktie around his throat. His song seems in part to say, "See! see! O see what I have on," as he swells out his chest. He is as proud of his vest and scarf as a small boy with a new gold and black necktie.

There is an old story which tells that once upon a time long, long ago there was a little boy who had a gold and black necktie. Every day he would boast and brag about it. Finally the fairies decided to punish him for his bragging. Thinking he would be sad, they changed him into a bird with a golden vest and a black scarf around his throat. Instead he became the happiest of birds, making people glad with his song of spring.

During March the meadowlarks are building their nest. Like the quail, Mr. and Mrs. Meadowlark make their home in the tall grass. Old fields are favorite nesting places because the dead and uncut grass offers a hiding place for their nest. It is made of grass and straw, with a roof of



Mr. Meadowlark

grass built over it. To make it even more difficult to find, Mrs. Meadowlark never flies directly to the nest, but goes beyond it and then quietly sneaks back. In the nest there are usually from four to five white eggs, thickly speckled with reddish brown dots.

For two weeks Mrs. Meadowlark keeps the eggs warm under her wings. Then one day the little birds break through their shells. These bird babies are very ugly little lumps of brownish gray with long beaks lined with red. For several days they are blinded by a thin coating over each eye. Like the baby quail, when frightened they lie close to the ground with eyes closed and heads drawn between their shoulders.

Four or five days after hatching, when they can barely walk, they scatter from the nest. Each takes a different path and wanders a short way from home. Poor Mrs. Meadowlark, what a task to raise five babies each of whom has wandered off in a separate direction! But she does not mind, for in this way a hungry hawk is not so apt to eat all of her babies. Long before they can fly these bird babies are good walkers. They have the family manner of stepping proudly along with head held high in the air and chest out. All meadowlarks are more graceful when walking than when flying. In flight their bodies seem too heavy for their short wings.

We have many reasons for loving this beautiful bird.



The meadowlark's home

His song makes everyone happy. Even when he works hard getting his dinner he is doing the farmer a favor, for he eats many cutworms, grasshoppers, and other insects which would otherwise destroy many valuable crops.

Underline the right word.

1. The meadowlark has a _____ vest.
yellow, brown, black
2. The nest of the meadowlark is built in the _____.
trees, grass, bushes
3. The meadowlark is noted for his _____.
swiftness, courage, song
4. The meadowlark's nest contains _____ eggs.
five, seven, ten
5. Choose three words that describe the meadowlark.
 - a. proud
 - b. cruel
 - c. cheerful
 - d. friendly
 - e. lazy
 - f. quiet

The Busy Wren

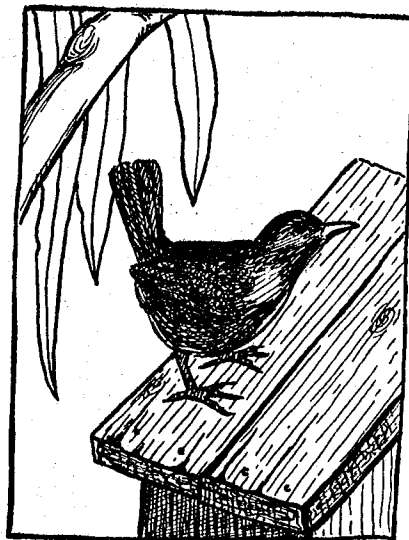
The wren is the busiest of birds. He is always hopping about searching for food. It seems as if he never takes a rest. There he goes hopping, flitting, bobbing about through the trees. When he finally does pause, he bursts into a sweet, loud song. He sings so loudly and so hard, that his little body trembles.

Mr. and Mrs. Wren look very much alike. Both are tiny little creatures, wearing grayish brown coats. Their vests are of light brown. The coats and vests are speckled and banded with dusky, brownish white. Long brown and white speckled tails complete the pretty picture they present.

During March the little wrens arrive from the south. Their first task upon arriving is to look around for a nest. The older birds return to the same nest year after year, and are very busy for many days carefully cleaning it out.

This particular year, however, Mr. and Mrs. Wren are delayed down south, and when they arrive they find their nest occupied by English sparrows. Oh my, how angry the little wrens are! Mrs. Wren scolds and fusses, but, of course, the sparrows just laugh and stay right there.

The wrens are usually very easily satisfied. They will nest in almost any cavity or hole. But this year Mrs. Wren just will not be satisfied. Her husband has found an ideal



Mr. Wren

spot, a knot hole in the stump of a tree. But Mrs. Wren will not even consider it. She has found an old woodpecker's nest and fusses about it for awhile. However, even that will not do. Finally, after many weary days of searching, she finds just the place; a pretty little bird house, with a tiny entrance hole near the top. The wrens like very small entrance holes, for then they are safe from their enemies.

The busy little wrens certainly live up to their name. In almost no time at all they have that little bird house nearly completely filled with criss crossed twigs and sticks. It is a funny sight to see little Mr. Wren with a great long stick in his beak, figuring and figuring how to get it into the tiny bird house entrance. Neither of the little birds is ever too busy to sing. Every once in a while he will stop working, and sing loudly.

After the bird house is almost filled with twigs, both birds work for a time inside the nest. They are making a deep hollow in the center of the twigs. This they line with feathers, horse-hair, and grass, in fact, anything they can find that is nice and soft.

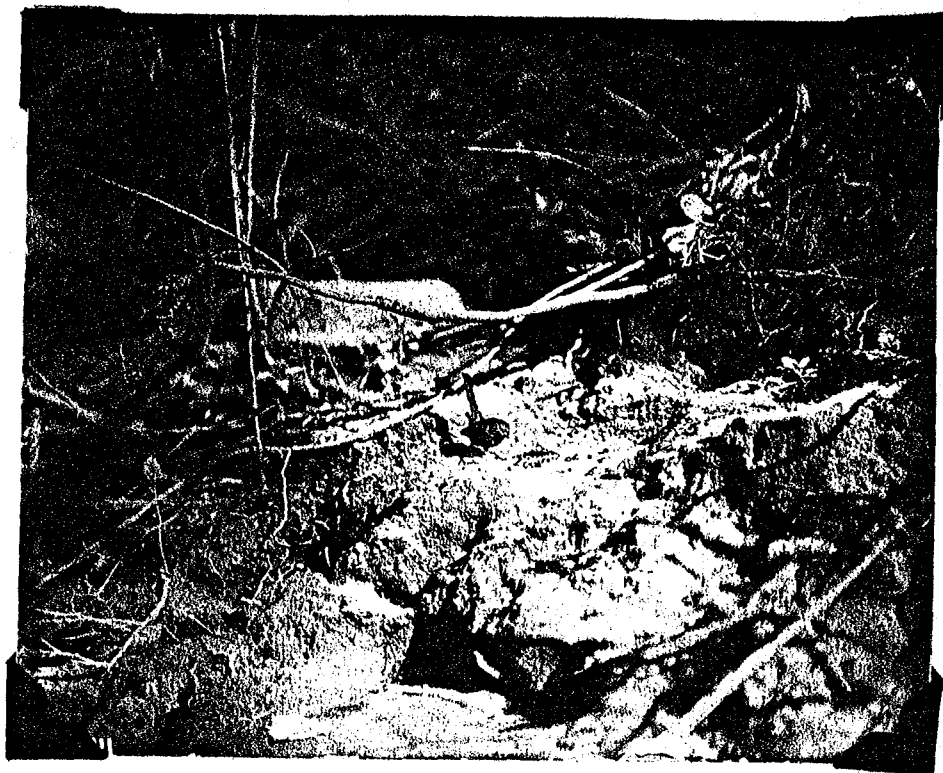
In her cozy new nest Mrs. Wren lays six to eight creamy white eggs, spotted with brown. These she guards very closely, for she knows that Mr. English Sparrow and many other enemies are waiting to destroy them.

After two weeks of care the eggs hatch. Even with

this large family to take care of, the wrens find time to flit and dart around. They express their happiness by singing more than ever.

Mr. and Mrs. Wren are very good parents. They never leave their home unguarded. Mrs. Wren takes her task so seriously that she becomes cross and quarrelsome. She takes great delight in scolding and teasing any cat that comes into the neighborhood. Mr. Wren scolds cats only when they are near the bird house. But Mrs. Wren goes out of her way to find a cat. She will fuss and scold even when it is many blocks away from her nest. Of course, she has good reason to be afraid of cats, for they are great enemies of birds, often destroying both them and their young.

After the young have left home, Mr. and Mrs. Wren often raise another family of babies. This keeps them very busy all through the summer. When it begins to get cold, in early October, the little wrens leave for their winter home in the sunny south.



Mr. Wren finds his meal on the rocks

Write True or False After Each Sentence:

1. The wren is the busiest of birds.
2. The wrens build their nests on the ground.
3. Mrs. Wren and the house cat are great friends.
4. Mr. and Mrs. Wren both wear grayish brown coats.
5. The wrens are very poor singers.
6. During March the wrens arrive from the south.
7. The wrens' eggs are creamy white, spotted with brown.
8. The wren will return to the same nest year after year.

The Practical Joker

Little Mr. and Mrs. Wren, after carefully looking around for hidden enemies, have decided that all is safe and are bringing their babies out on the porch of the bird house. Just as they get them all out and are giving them their first lesson in flying, the air is filled with a shrill cry, "Jayick, jayick." In and out the bird house Mr. and Mrs. Wren hurry, dragging their children to safety. Once their family is safely inside, Mother and Father Wren peek out of their door to catch a glimpse of the jay whose cry they have heard. The only bird in sight is the mockingbird who is rocking with laughter on a nearby post. Poor little Mrs. Wren flies into a rage and seems to say to her husband, "When will that mockingbird learn to be a gentleman, and stop teasing the rest of us."

The mockingbird is the tease and practical joker of birdland. He can imitate all the other birds' songs and cries. In fact, any sound that he hears he can repeat. He imitates the sounds so perfectly that he deceives every one but himself. When every one has been deceived, he will scornfully cry, "Yaa, yaa."

Mr. Mocker has great fun fooling the chickens. As he flies close to their yard he will utter the shrill cry of a hawk. Greatly frightened, the chickens hurry into the hen house. After they are all safely hidden the mockingbird



Mr. Mockingbird.

imitates the "Cluck, cluck" of an old hen and calls the little chicks back into the yard. "What great fun," Mr. Mocker seems to say as he bursts into his own beautiful song.

The mockingbird loves warm weather and so he spends most of his time in Southern California and the San Joaquin Valley. On warm moonlight nights he often awakens every one with his lovely song. Occasionally, he winters around San Francisco Bay.

This teasing rascal is colored black, white, and gray. His throat and breast are of light gray. The feathers on his back and wings are of slaty black. He has a long black and white tail. Mr. Mocker is always neat and clean and seems especially proud of his long tail.

The mockingbirds show their fondness for people by building their nests in gardens or orchards close to our houses. They have no fear that their nest will be destroyed, for they have learned that people love their melodious song. Their nest is well made and soft.

Mrs. Mocker gathers twigs and grass which she criss-crosses into a shallow nest. She then goes in search of horse-hair, rootlets, cotton, or any material that is soft. This is used to line the nest, so that it will be nice and smooth for the four or five pale blue or green eggs spotted with light brown.

While their children are little, Mr. and Mrs. Mocker are the most jealous and quarrelsome parents in birdland.



The mockingbird's nest is well made

If even the most innocent of birds comes near their nest they drive them off with shrill cries. They even quarrel with their human friends, scolding and fretting when they are many feet away from their nest. Mr. Mockingbird seems to feel that every one should move away and leave him quietly alone until the babies are grown.

Even when they are not nesting, the mockingbirds love to tease cats. A wise cat hides away while the mockingbirds are near. Woe to the cat that comes across Mr. Mocker's path! With sharp cries he will jab at it with his beak and claws. Then how the fur does fly! Again and again Mr. Mocker returns to the attack. Mr. Pussy is forced to retreat, having learned that the mockingbird is not only a great tease, a beautiful singer, but also a persistent fighter.

Fill in the blank spaces.

1. Mr. Mocker loves to play _____ on the other birds.
2. He can _____ many other birds.
3. He has a long _____ and _____ tail.
4. There are _____ eggs in the mockingbird's nest.
5. When the babies are small Mr. Mocker is very _____.
6. The mockingbird especially loves to tease the _____.
7. List three words that best describe the mockingbird.

The Bold, Black Robber

"Robber, robber," we have always called as we saw a crow dipping and circling in the sunny sky. He dresses entirely in black, but as he moves in the sun, purple and green lights glisten on his shiny satin back. Everyone has always thought that the crow did nothing but rob birds' nests and steal corn and grain from the farmer. Because of this, he has been hunted and killed and treated as a black outcast.

Recently men who know and study birds have found that, although he does rob birds' nests and steal corn, he spends most of his time helping the farmer. When the farmer plows his field the crows follow along behind eating the bugs which are turned up by the plow. In this way the bugs which harm the crops are destroyed. All through the year the crows feed on harmful insects. Occasionally they act like bad pirates and rob birds' nests of their eggs and young.

Because he has been constantly in danger, the crow has become the wisest of birds. He has studied man and his habits, and has become every watchful and careful in protecting himself. The crows flock together in large bands because they realize that they are safer together. Each band has several sentinels whose duty it is to keep on the watch for danger. If the sentinel sees a man coming with a gun, he quickly gives the signal, and away the flock flies.



Mr. Crow

The crow has but one cry, "Caw, caw, caw," However, he utters it in many different ways to express his feelings. Mrs. Crow's anxious cry, "Caw, caw, caw," very clearly says, "Go away, go away, please." When Mr. Crow acts as guard his single sharp, "Caw," means "Danger is near."

Mrs. Crow, sly old bird that she is, shows much wisdom in the building of her home. She inspects several tall trees, searching for one in which her large nest will be well hidden. Mr. and Mrs. Crow build their nest in the bushy top of a tall tree. They will never use the same nest twice, but always build a new one each year.

Having found just the right tree, Mrs. Crow goes in search of sticks and twigs to form the base of her nest. Upon these she carefully lays soft bark strips, grass, and dried leaves to form a lining. Some times she will press them together with dirt and mud. While she is building the nest, Mrs. Crow is very shy and cautious. At the approach of any one she will stop her building and silently wait until the stranger has passed out of sight.

When Mrs. Crow has finished her nest she calls for Mr. Crow to come and inspect her handiwork. Perched upon a nearby limb, she patiently waits while he inspects the nest. Soon Mr. Crow takes his place beside her. With many queer signs and noises he informs her that it is a very neat and well built home. In the nest Mrs. Crow lays four or sometimes

five pale bluish green eggs, spotted with olive green.

Two weeks later we find four or sometimes five ugly, featherless, and hungry little baby crows in the nest. They have little black heads and large red mouths, which are always wide open for food.

There is no bird that makes a better pet than a young crow. If taken from the nest and well treated he will become a smart and loyal playmate. He can be taught many tricks and is very wise and friendly.

The crow has a bad habit of robbing birds' nests and stealing corn and grain. But he is such a brave, smart fellow that we can not help but admire him. The good he does by destroying harmful insects more than makes up for his mischief. He is like the pirates of old, at times acting cruelly, but always brave and bold.

Choose the right answer.

1. The crows are often called black thieves
 - a. Because they go in large bands.
 - b. Because they often rob birds' nests.
2. Mrs. Crow builds her nest
 - a. In the top of a tall tree.
 - b. In the tall grass.
3. The crows do more good than harm
 - a. Because they rob birds' nests.
 - b. Because they destroy harmful insects.
4. The crows have become very wise birds
 - a. Because they band together.
 - b. Because they have been constantly in danger.
5. Choose four words which describe the crow.
 - a. Coward
 - b. Wise
 - c. Black
 - d. Shy
 - e. Robber
 - f. Singer
 - g. Bold

Soldiers of the Marshes

"Con-quer-ee, con-quer-ee," rings through the lonely marshes. Startled by this cry, we look all around trying to locate its source. "Con-quer-ee, con-quer-ee," it comes again. Gazing upward, we see the guardian of the swamps calling to us from the highest tree. What a splendid soldier he is, dressed in his uniform of black with bright red shoulder straps to show his rank. He is a sentry, guarding his home in the swamps.

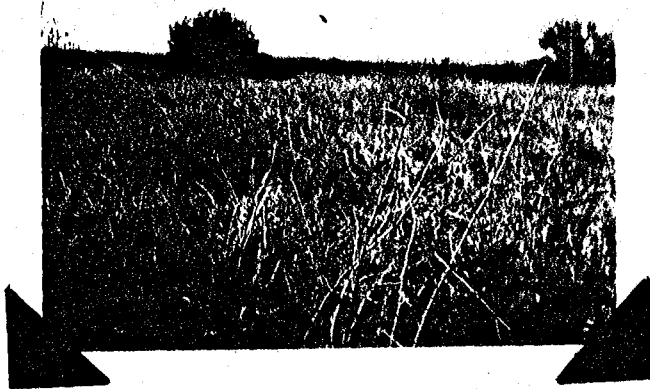
As we continue walking he becomes very excited and follows us, uttering shrill calls of "Please, please." Soon he is joined by Mrs. Redwing. She wears dull black feathers streaked with brown, and is much smaller than her brave husband. She, too, is excited and scolds us soundly. Looking downward we realize the reason for their excitement.

Swinging from two reeds is a skillfully woven cradle of coarse grass. We are lucky to get a view of it, for the redwings' nest is always well concealed in a thick growth of reeds about two feet above the marsh. Their nest is truly a work of art. Mrs. Redwing gathers long strands of coarse grass and weaves it into a deep cup-shaped basket. Then she very carefully fastens each side to an upright reed or cattail stalk. Next she gathers soft grass to line this gently swaying cradle.

Of course, we cannot go on without peeking into this nest. In it are three beautiful, pale bluish green eggs,



Mr. Redwing



The soldier stands guard

streaked with black. Sometimes Mrs. Redwing lays four eggs.

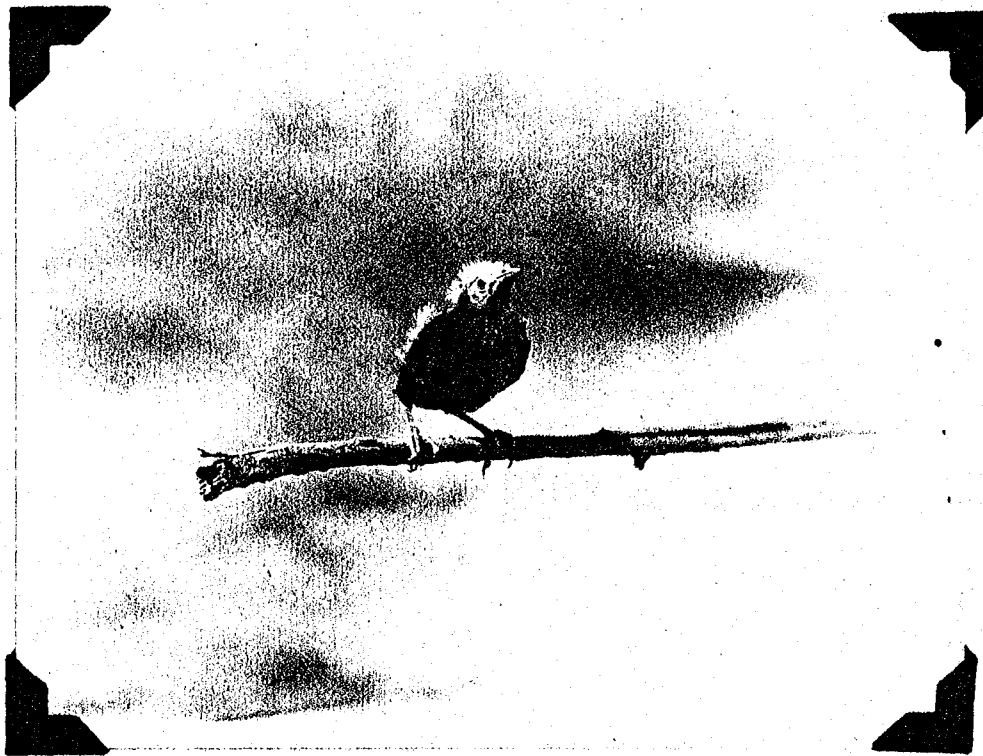
After two weeks we again visit the redwings' nest. There, cozy and warm in their cradle, are the little redwings. The wind acts as their nurse maid and gently swings their cradle to and fro. They look more like their brown mother than their handsome black and red father. These little helpless creatures are constantly complaining and crying for food.

The redwinged blackbirds live on insects, weed seeds, and grain. Although they do a great deal of damage to the grain and rice crops, they more than make up for this by destroying harmful insects and weed seeds.

Some of the redwings stay in California during all the year. Others arrive here from the north during the autumn. Like so many other tourists, they come in several large bands to spend the winter here. Mr. Redwing and the other soldiers arrive a day or so before the mothers and half grown children. After they have all arrived, they chose a marshy spot and establish a camp. Often there are thousands of redwinged blackbirds in one camp. A few sentries are always on guard. They challenge every one who approaches, even bravely fighting much larger birds who seek to enter their camp.



Where the redwings build their homes



Little Redwing poses for his picture

How Much Do You Remember?

1. Describe Mr. and Mrs. Redwing.
2. Where do the redwinged blackbirds live?
3. How do they build their nests?
4. What do they eat?
5. Describe the redwings' eggs.
6. Why is the redwinged blackbird called, "the soldier of the marshes?"
7. Do the redwinged blackbirds fly south in pairs or in large groups?

The Wise Old Bird

Have you ever been deep in the forest on some dark night? Then perhaps you have seen or heard the most widely known of our wise old night birds, the screech owl. It seems that just when you are in the darkest spot, you hear the flutter of ghostly wings and see a big pair of shining yellow eyes staring at you through the darkness. The eyes never blink, but stare and stare. Suddenly there is a weird, sharp cry and the eyes disappear.

It is even more weird and ghostlike to catch a glimpse of the screech owl during the day. Very rarely does the owl come out during the daytime. When he does he brings his wife and children out, too. There they sit in a row, the mother, father, and two, three, or four almost grown children. They are all dressed in brownish gray, striped with black. The screech owls have ear tufts, which look very much like little gray horns. Mr. and Mrs. Screech Owl are about the size of robins, usually ten inches in length, but they appear much larger because their feathers are so thick and fluffy.

There they sit gray and motionless, with their eyes closed to mere black slits. Thinking they are asleep, we steal nearer. Their yellow eyes suddenly fly wide open, and they bend this way and that, staring wildly about. As we take another step towards them, they look even more frightened,



The wise old bird, Mr. Screech Owl

and, with a ghostly flutter of wings, disappear.

Perhaps the owl has gained the reputation of being wise, because he looks so solemn and serious. Then, too, he seldom utters a sound, and in that way, shows his wisdom. The owls are usually very cautious and will hide away until night time comes. Then out they silently come to search for food. Mice, beetles, frogs, and insects are their favorite foods. When they make a meal on these, we are very grateful, for they are destroying many harmful pests.

Mr. Owl dares not venture out during the day when the blue jay is near. If Mr. Jay catches a glimpse of the poor old owl he will tease and torment him. The mean blue jay, knowing that Mr. Owl can hardly see in the bright sunlight, flies around him, pecking at him with his sharp beak. However, when Mr. Jay, returning home late at night, sees an owl, he sneaks away and hides. For he knows that Mr. Owl is no longer at a disadvantage, and can easily destroy him.

The problem of making a home is not a very difficult one for the screech owls. They are satisfied when they find a hole in the trunk of an old tree. They prefer to locate in the woods where the trees offer protection from the bright sun. However, they are sometimes found nesting in an old orchard. At times they will choose a deserted woodpecker's hole.

They are lazy birds when it comes to building their

nest. They do not bother to carry soft materials for a lining as other birds do. Mr. and Mrs. Owl are perfectly satisfied to use it as they find it. Often their three or four whitish eggs are laid upon the rotten wood and chips left on the bottom of the hole.

Mrs. Owl is like an old hen when she is sitting on her eggs. She seldom leaves the nest until the eggs are hatched. Mr. Owl, when he is not helping his mate with the eggs, is usually found in another cavity nearby.

After Mr. and Mrs. Owl have patiently cared for their eggs for about three weeks, we find three or four little baby screech owls in the nest. They are covered with a thick white down, and if it were not for their big eyes and large beaks, they would look very much like little baby chicks. When they are disturbed, they will make a noise similar to that of little chicks. These little soft gray babies have a big appetite. It keeps Mr. and Mrs. Owl busy all night hunting food which they store away for the babies' meals next day.

Unlike most other birds, the baby owls stay home for many weeks after they have learned to fly. When they finally decide to leave home and see the world, Mother and Father Owl send them off with their best wishes. Then Mr. and Mrs. Owl become a little less quiet on their nightly trips, and more often do we hear their weird sharp screech ringing through the dark woods.

Choose the right answer.

1. The screech owl appears larger than he really is
 - a. Because he has ear tufts.
 - b. Because his feathers are thick and fluffy.
2. The screech owl is a very valuable bird
 - a. Because he has yellow eyes.
 - b. Because he eats mice and insects.
3. He is often called the wise old bird
 - a. Because he looks solemn and serious.
 - b. Because he flies around at night.
4. The baby screech owls look like baby chicks
 - a. Because they have big yellow beaks.
 - b. Because they are covered with a thick soft down.
5. The problem of building a home is not difficult for the screech owls
 - a. Because they are satisfied with a hole in the trunk of a tree.
 - b. Because they are hard workers.

House Hunting

Spring has really come when, bright against the sky, we see a flash of blue wings. With his vest of grayish brown, Mr. Bluebird wears feathers of brightest blue. Mrs. Bluebird prefers paler, duller colors.

There are two distinct types of bluebirds, the eastern and western bluebirds. They look very much alike. The eastern bird, who lives east of the Rocky Mountains, sings a lovely song. Sad to tell, the western bluebird, who is even more vivid and beautiful than his eastern cousin, does not sing. He comes to us from Mexico and perhaps still feels a little shy in a strange country.

During April and May the bluebirds leave their sunny winter home in the south and fly north. Like the red-winged blackbird they form into two groups for the trip. Mr. Bluebird and his men friends are the pioneers and arrive several days before the ladies.

As soon as Mr. and Mrs. Bluebird have definitely decided where they will spend their summer, they start looking for a place to make their home. They are usually our most gentle and well behaved birds. But when they are house hunting; ah, that is a different story. Like most house hunters they become cross and quarrelsome.

Every morning bright and early Mr. and Mrs. Bluebird



A pause in house hunting.

start off on their hunt. Mr. Bluebird always flies a little ahead of his wife to protect her from any danger. Suddenly his wife will stop and gaze with longing eyes at a little bird house which is being occupied by some wrens. Mr. Bluebird seems to understand just what that means for over he flies to discuss the matter with Mr. Wren. He scolds and quarrels and tries his best to force the little wrens to move. But Mr. and Mrs. Wren are determined to stay. Finally off the bluebirds go, to continue their weary search.

After several days of house hunting they find an old woodpeckers' nest and decide to make this their summer home. The bluebirds, you see, will nest in bird houses, old woodpecker's nests, or hollow trees. They do not like to live in a brand new nest that they have built themselves. Perhaps they realize that they are poor nest builders.

Now that they have adopted the woodpecker's nest as their home, they must line it with some soft material. Together they fly in search of string, grass, or feathers. Mrs. Bluebird brings all the material and does all the work. She very carefully adjusts the string in the lining of the nest. Then she leaves the nest and waits nearby while Mr. Bluebird looks over her work. He always

applauds and tries to say, "Very well done, my dear."

Soon the lining is finished and on it Mrs. Bluebird lays five pale blue eggs.

In two weeks there are five little fuzzy black babies in the spotlessly clean nest. In a few days little spots of blue show through their black down. Three of the babies seem to have more blue spots than the other two. These three are the baby brothers. When their mother and father bring them insects or weed seeds, they give a little squeal of joy. But when a stranger looks in, they hiss like five little black snakes.

When these babies are two weeks old they are ready to learn to fly. It takes very little coaxing for them to attempt their first flight. Then how joyfully they fly from tree to tree. No wonder Mother and Father Bluebird sit so proudly in a nearby tree and watch these little fuzzy babies of theirs playing in the sun.

How much do you remember?

1. Where do the bluebirds make their home?
2. What material does Mrs. Bluebird use in lining her nest?
3. How old are the baby bluebirds before they can fly?
4. When do the bluebirds arrive from the south?
5. Name the two types of bluebirds.
6. Tell how these two types of bluebirds differ.
7. What color are the baby bluebirds?
8. Draw a picture of Mr. and Mrs. Bluebird.

Yellow Bill, The Chatterbox

Have you ever heard the expression, "as noisy as a magpie? Perhaps some of you have even been called one. If you have, then you have been compared to that noisy, talkative bird, the magpie. When a group of magpies get together their continual chatter can be heard a long distance away. They all talk at once, seeming to pay no attention to what the others are saying. When Mr. Magpie is alone, he grumbles and chatters to himself.

There are only two types of magpies, the black billed and the yellow billed. These two types differ only in size and the color of their bills. Mr. Yellow Bill is an old resident of California. Unlike his well traveled, larger cousin, Black Bill, he does not roam around, but stays in California all the year round.

Yellow Bill is to be the hero, or rather the villain of this story. What a saucy villain he is, dressed in his black and white suit, with just a touch of yellow to brighten his costume! He wears a black cap pulled way down over his head and shoulders. It looks like a bandit's mask with slits cut for his yellowish eyes and his long yellow bill. He wears a vest of pure white feathers. The under feathers are black. His black feathers are very beautiful in the sun. They seem to have many beautiful colors, purple, bronze, and green, hidden in them. These are seen only when the sun shines on them. We almost forgot to mention

his long black tail. This is the magpie's pride and joy. He holds it from the ground most carefully as he walks.

Yellow Bill is one of the "bad boys" of birdland. He is a thief, a mean sneaking one, too, who takes advantage of his larger size to rob the little birds of their eggs and young. Bold, impudent rascal, just as you are about to scold him, he will slyly wink an eye at you. Then, tilting his long tail at a saucy angle, will laughingly fly away.

Like other thieves and bandits, Yellow Bill wants to be sure he is safe in his home, so he builds himself a carefully protected nest. He works and works, building a large nest of interlaced sticks, "as big as a bushel basket;"¹ His home is often three feet deep and at least two feet wide. The nest is placed at almost any height in a willow, aspen, or pine tree. Almost any tree will do that has large clumps of mistletoe hanging from it. Yellow Bill will often build in a mistletoe clump or will make his huge nest so cleverly that it looks like one.

Mr. and Mrs. Yellow Bill gather sticks by the dozens and carefully build the large ball-shaped frame for their nest. In the center they place a cup-shaped nest of mud. The bottom of this mud nest is filled with a loose bed of fine twigs. Upon this is placed a mat of clean rootlets. This mat is always kept neat and clean by Mrs. Magpie.

¹ W. L. Dawson, The Birds of California, I, 31.



Fluffy little Yellow Bill

The entrance to the inner mud nest is like a maze. In and out between the twigs goes Mrs. Yellow Bill until she arrives at the mud nest. If she is surprised on the nest, she will escape through a passage way on the other side.

Mrs. Yellow Bill usually has seven or eight pale grayish green eggs to care for. The eggs are spotted with olive green dots. It takes twenty one days of almost constant care before the little magpies break through their shells.

When first hatched, the little Yellow Bills are frightfully ugly. They have no feathers nor down to hide their red skinned coats. After two or three days little downy black and white feathers appear. They look like little fluffy black and white balls with big yellow beaks. Mr. and Mrs. Magpie spend most of their time hunting food for their family. Then more than ever does Yellow Bill sneak around robbing and killing to feed his young.

Of course, Mother and Father Magpie think their babies are very beautiful and lovely children. If anyone goes near the nest they fly into a most horrible rage. They chatter and grumble and shout at the stranger. Yellow Bill loses his temper so completely that he digs his beak into the bark of the tree or into the ground.

Yellow Bill can be made a delightful pet. After much patient instruction, he has even been taught to talk. Mr. Noack of Oakland had two magpies who learned to talk very

plainly. When properly trained, the magpie is a fine pet, very mischievous and always interesting.

Find the right ending for the following sentences:

1. The magpie's long black tail is all the year round.
2. Mr. Yellow Bill stays in Cal- of mud.
ifornia
3. The magpies' nest often looks a black and white
suit.
4. The inner nest is made a large nest of twigs.
5. The little Yellow Bills like a mistletoe
clump.
6. The grayish green eggs his pride and joy.
7. Mr. Yellow Bill wears look like fluffy black
and white balls.
8. The magpies build are spotted with olive
green dots.

The Tiny Acrobat

High above our heads in a tall tree, two little gray and black birds are busily searching for food. They climb about like tiny monkeys, now clinging to a limb, and now hanging head downward. What excellent and graceful acrobats they are! For a long time we watch them climbing in and out, and wonder what kind of bird they are. The little birds stop quite often to watch us in a friendly fashion. They seem unafraid and almost tame. Suddenly our question is answered by their happy little song, "Chick-a-dee-dee, chick-a-dee-dee."

The little chickadees are just as lively and pretty as the song they sing telling us their name. These little fellows, for they are only five inches long, wear only gray and black clothes, no bright colors for them. With their gray coats and whitish vests they wear shiny black caps. The California mountain chickadee has a white line above his eyebrow to add to his beauty.

The chickadees are very clever home builders. Like the woodpecker they build their nest in the trunk of a dead tree. They usually choose a dead pine tree in the open woods, near some stream or lake. When they have located the tree that is to be their home, they start to work.

Father Chickadee begins to build by pecking out chips from the trunk of the tree, about ten feet above the ground. The chickadees are very neat builders. They do not let the



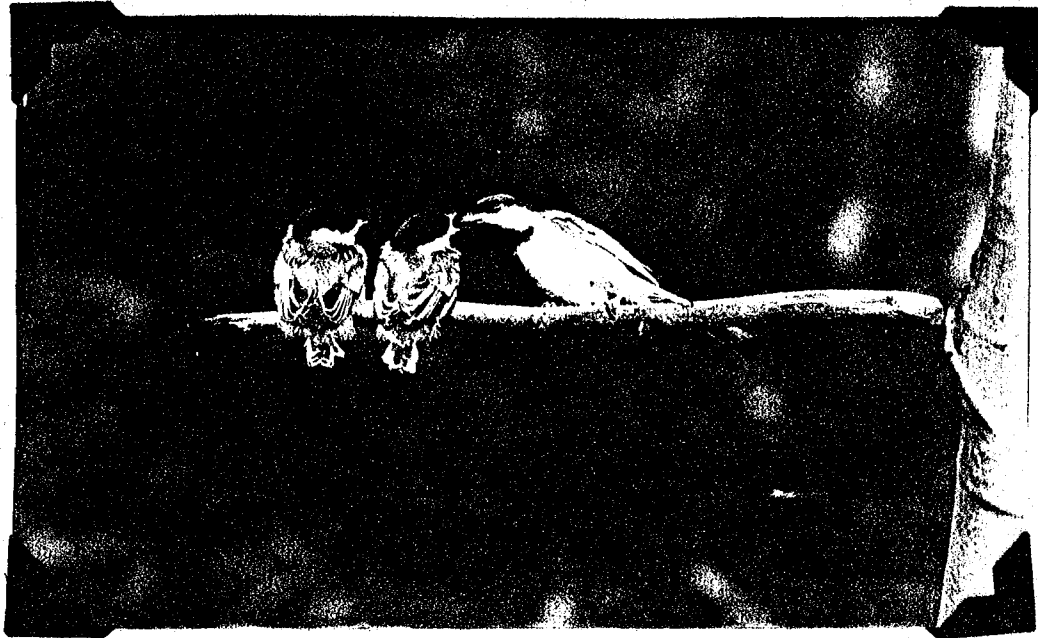
Mrs. Chickadee at home

chips drop to the ground. Indeed not, for that would give away their secret to their enemy, the jay. Instead they carry each chip to a nearby stream, so that it will float away. While Mr. Chickadee is hiding his chips, Mrs. Chickadee takes up the work.

After many days of hard work, they complete their little home. It is about seven inches deep. On the bottom they place soft, green ferns. Then off they fly in search of rabbit's fur. This is used as a little fur blanket for the five to eight small white eggs, dotted with reddish-brown spots.

Mr. Chickadee is a most loving husband. While his wife tenderly cares for the eggs, he brings her delicious bits of food. Moths' eggs, spiders, grubs, insects of all kinds are brought to Mrs. Chickadee. Occasionally both he and his wife leave the nest for a few minutes. Before she leaves, Mrs. Chickadee pulls the fur blanket over the eggs so that they will remain warm until her return. She is a very brave mother. If disturbed on her nest, she will dash at the enemy, uttering wild, cat-like cries.

After the young birds have been taught to fly and have left home, Mr. and Mrs. Chickadee have a gay time. They can often be seen chatting with the wrens, towhees, and other birds. They love to hang head downward, using their tails to balance themselves with, and chatter as they search for food. It is rumored that they are great gossips. Of this we are not sure, but we do know that they are graceful acrobats,



Dinner time for the Chickadees

gay little songsters, the tamest of birds; in other words, our lovable bird friends, the chickadees.

Fill in the blanks using words listed below:

1. The chickadees build their nest in the _____ of a tree.
2. On his head the chickadee wears a _____ cap.
3. The _____ of the chickadee is the jay.
4. The nest is lined with _____ and _____.
5. The chickadees hide the _____ when they build their nest.
6. There are five to eight small _____ eggs in the nest.

The Mud Plasterers

There he goes in and out, curving and dipping, always with the most surprising grace and speed. The barn swallow is the most beautiful and graceful aviator in birdland. On some warm summer evening, you may see a flash of his tan vest or blue wings as he skims low over a brook, dipping down for a drink as he flies. Then off he goes across the meadows. He is called the barn swallow because he loves to live near people, often making his home in a barn.

After a beautiful exhibition of bird flight, the barn swallow finally comes to rest on a telephone wire. It is amusing to watch him alight. He flutters over the wire for a moment and then settles down. Back and forth he sways dizzily until we are certain he will fall. But not this graceful fellow; he seems entirely at ease on the swaying wire. Soon he is chattering and twittering about us with his brother and sister swallows who have joined him on the same wire.

Now that he is at his ease we have a chance to see how he is dressed. His coat is of beautiful shiny steel blue. About his pale brown vest is a scarf of lovely chocolate brown, which covers his chin and throat. His wings and long forked tail are black.

During March Mr. and Mrs. Barn Swallow make their yearly trip north. Of course, their first task upon arriving, is

to find a place to build their home. Last year Mr. and Mrs. Swallow had a very nice home on the inside of a barn. This year, however, Mrs. Swallow decides to find a cooler and more airy spot. After much searching she finds just the place, a low bridge over a tiny stream. Mrs. Swallow soon persuades her husband that this is a better place than the barn. She points out that in having a nest over running water they will be safe from animals. Then, too, many insects are all around, and they will not have far to go for food.

Having made up their minds where they are going to build, they immediately start to work. They are wonderful little mud plasterers, building their home entirely of mud and straw. Mr. and Mrs. Swallow roll little wads of clay mud into balls about the size of marbles. As they work in the mud they hold their long wings straight up to keep them clean, working the mud with their claws and beaks.

Back and forth they go carrying the little mud balls which they carefully place on the braces under the bridge. These are closely placed in distinct layers like little mud bricks. Each row is separated by a layer of straw. When the nest is completed, it looks like a pocket of mud. A small opening is left at the top. The inside is filled with grass and feathers. Upon this feather bed Mrs. Swallow lays three to six white eggs, spotted with reddish brown.

Mr. and Mrs. Swallow are very devoted parents. The

little swallows are kept out of sight in the mud brick house until mother and father decide they are ready to learn to fly, Then what an exciting time the swallow family has! One baby at a time is brought up to the opening. The first baby is coaxed and coaxed and finally away he goes to a nearby bush. Then his little brothers and sisters anxiously follow his example.

The little swallows need very few lessons in flying. They soon learn to dive and curve and fly with astonishing speed. Then off they go into the boundless blue in search of adventure. Mr. and Mrs. Swallow stay close to their little mud house and often raise a second family before they leave for the South. When the weather begins to get cold, they leave us for warmer places. For many days after they have gone, we miss their soft "Twit, twit," and the flash of their blue wings and tan vests. We will be glad to see them again next spring, for the barn swallows are our beautiful and helpful friends, doing us constant service by destroying harmful insects.

Fill in the blanks with the right word.

1. The barn swallow builds his nest of _____.
2. They like to build under a _____ or in a _____.
3. The inside of the nest is filled with _____ and _____.
4. The three to six eggs are _____, spotted with reddish brown.
5. The barn swallows eat many harmful _____.
6. They sometimes build over water because they are safe from _____.
7. The layers of mud in the nest are separated by _____.
8. The barn swallows are the most graceful _____ in bird land.

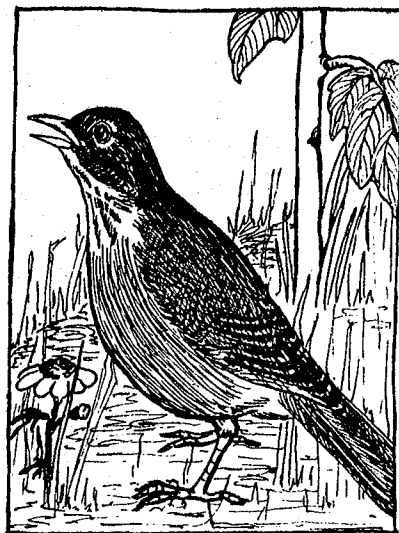
Our Early Visitor

No boy or girl in the United States needs an introduction to their good friend, Mr. Robin Redbreast. He is the best known and most beloved of all our birds. On the coldest winter day this lively little friend hops around gaily. When he sees one of his human friends, he cocks his head to one side, and, looking at him with his bright eyes, sings his simple but lovely song.

Mr. Robin has a black head, white chin, and black and white streaked throat. Although his coat is dull brown, he looks bright and gay for he wears a reddish brown vest. Mrs. Robin is smaller and wears duller colors.

The robins do not carefully hide their nests. They seem to know that we love them and will not harm them. Most of the robins build their nests on the branches of trees or in bushes. Some, however, choose very queer places to make their home. Their nests have been seen on beams of porches, and even on window sills.

After Mr. and Mrs. Robin have decided where they will build their nest, they are very busy birds. Mr. Robin spends most of his time gathering food, leaving the nest-building to his wife. She makes many trips to and fro gathering material. The robins are not very



Mr. Robin

particular what they use for the nest. Twigs, leaves, rags, or string are all eagerly gathered. Mrs. Robin then carries mud to her nest. She uses this to bind the other materials together. Arriving with a beak-load of mud, she drops it into the cup-shaped home. Then she hops into the nest and kicks the mud firmly into the other material. From time to time she tests the smoothness by settling in to the nest with her breast. However, the shaping is done entirely by her feet.

In the robin's nest, there are usually four green-blue eggs. These eggs are not spotted as are the eggs of the jay, but are of a clear greenish-blue color.

The young robins have plump, yellowish vests with dark freckles on them. They are half fuzzy down and half feathers. Like all other bird babies they are always hungry. They constantly demand attention and service. Mr. and Mrs. Robin are kept busy flying into the garden in search of a nice fat worm or perhaps a sow bug for their babies. Many trips to the garden are required before the baby robins are satisfied. Each little robin eats daily enough bugs and worms to equal one-half his weight.

Friend Robin Redbreast is always welcome in our gardens. He does many services for us there, for he destroys the insects that harm the flowers. Sow bugs, snails, and worms are seized and eaten by the bright eyed robin. He



The robin's nest is not carefully hidden

has just one bad habit. Oh, how he loves berries and fruits! But since this is his only fault, we must forgive him for his sly pecks at our fruit trees and berry bushes. Indeed who could be angry at this lively, sweet little friend, Robin Redbreast.

Underline the right word.

1. Friend Robin makes his meal on
carrots, bugs, flowers.
2. A great deal of good is done by the robin in the
garden, fruit trees, berry bushes.
3. Mrs. Robin binds her nest together with
sawdust, cobwebs, mud.
4. The robin can be recognized by his
reddish vest, long tail, sharp beak.
5. The eggs in the robin's nest are
spotted, white, greenish-blue.

The Expert Builders

The oriole is not only a beautiful bird, but a very wise one as well. He is considered one of the six cleverest of California birds. In California the most common oriole is the Bulloch. He is very much like his eastern cousin, the Baltimore Oriole. Mr. Bulloch is a very handsome fellow, wearing bright orange, yellow, and black colors. He has a bright orange and black cap, and his back and wings are black. He also wears a black beard that comes to a point on his orange vest. His tail is yellow.

Early in March Mr. Oriole and his men friends arrive in California. They seem very restless and unhappy. About two weeks after they have arrived, we awaken to hear a burst of happy song. Looking out the window, we see that Mr. Oriole is very happily greeting a newcomer, Mrs. Oriole. She is clad in dull faded colors, yellow and brown, and to us seems far from beautiful. But Mr. Bulloch sings and sings telling her how handsome she is.

Soon after her arrival, Mr. and Mrs. Oriole start house-building. Mrs. Oriole is one of the most expert builders in birdland. Gracefully she will swing her nest from the high branch of a tall tree. Of course, Mr. Bulloch is a willing helpmate, and knows just how to help his wife weave the bits of string, thread, and wood fiber into their purse-shaped nest.

It is very interesting to watch the orioles at work.



Mr. Oriole

They usually select two branches that have a thick covering of leaves above them. This covering is to protect the nest from rain and to shelter it from the hot sun.

To these two branches they weave loose pieces of string gathered from some nearby garden, or pieces of horsehair gathered from the pasture. These finely woven strips are then let hang slack, forming a loop about eight inches long. Each end is then twisted firmly around several small twigs.

Now that the skeleton or outline of the nest is completed and securely fastened, they start weaving in the sides. What a happy pair they are, singing joyfully as they fly here and there in search of thread, string, and dried grass! In and out they weave the material they have found. Often Mr. Oriole will stay on one side of the nest and slip the material through to his wife, who carefully weaves it in and secures it firmly. When the nest is completed it is a beautifully and carefully woven home. Often Mrs. Oriole will use but two kinds of materials and weave them into a uniform pattern.

There are usually five eggs in the oriole's nest. These bluish-white eggs are beautifully marked with purplish black lines. Each egg is marked with a different pattern. For two weeks Mrs. Oriole watches over the eggs. Her husband stays on guard nearby, entertaining her with his songs.

As soon as the little orioles break through their shells, they start crying for food. Their poor, hard working

parents rush around gathering potato bugs, and insects of all kinds. Still the little ones cry. Even when the wind gently sways their cradle to and fro, they keep wailing for food.

When they are about three days old they crawl to the edge of the nest, and we have a chance to see these little "cry babies." They are really very pretty, with their soft little coats of downy feathers. In a few days they crawl out on the home branch and stretch themselves.

Mother and Father Oriole teach their little ones to fly when they are about two weeks old. It is a pretty sight to see the five little brown and yellow babies swaying on a limb. Father flies to a nearby limb and calls and calls. Finally one of the little ones flaps his wings and away he goes to join his father. Then another gains courage, until at last they are all gathered on a distant limb. We are sorry to see them leave, for we will miss their gay beauty and happy songs.

How Much Do You Remember?

1. Tell how the orioles build their nest.
2. Why are the little orioles called "cry babies."
3. How many eggs are there in the oriole's nest? Describe them.
4. Name two things that the oriole does well.
5. Describe Mr. Oriole.

The Bird Duet

One of our dearest bird friends is the little song sparrow. He is the happiest of birds, always singing cheerfully. Even on the coldest day in winter this little fellow will sing his lovely song.

Although many of his cousins in the sparrow family are great singers, none of their songs are as well known as his. When he sings in our garden he brings the wild woods to the city. No two song sparrows have exactly the same song. Each bird adds trills and fancy notes to suit his taste. The song sparrows love to carry on a musical duet. Perched on a bush a little sparrow will sing his joyous song. Then from a nearby tree will come the answering song of another sparrow. Each patiently waits his turn to sing, never interrupting the other bird. This little duet will be repeated over and over by the two song sparrows.

Mr. and Mrs. Song Sparrow dress very much alike. Both have brown heads streaked with black, with a grayish line in the center and over their eyes. Their backs are brown, streaked with black. Both wear grayish white vests with a black spot in the center. Their long tails are brown. Mr. Song Sparrow is about six inches in length.

The song sparrow is fond of shady spots near a lake or stream. Because he is a bird of the ground, he would



Mr. Song Sparrow

rather be on the ground than in the trees. He does not care for company, preferring it quiet. When he is frightened he hides among the leaves. If he is disturbed, he flies away with his jerking flight, working his long tail like a pump handle.

Because they like shady, moist spots, Mr. and Mrs. Song Sparrow build their nest near a stream. It is often placed right on the ground. When they do build in a bush, the nest is never more than two or three feet above the ground.

If Mrs. Song Sparrow decides to make her nest on the ground, she usually selects a hole in the sloping bank of some brook or ditch, well hidden by bushes. Now that she has located her future home, she busily begins to furnish it. First she must smooth out the bottom of the shallow hole. She does this by scratching out the bits of rock or limbs that have gathered there. Then she hops off in search of dried grass, ferns, or dead leaves with which she carefully lines her nest.

If Mrs. Song Sparrow wants to be a little more certain of the safety of her nest, she will choose for her home a shrub close to the water. The nest is built in the same manner, whether it is in a bush or on the ground. In the nest Mrs. Song Sparrow lays three or four bluish white eggs spotted with reddish brown.

The little song sparrows are usually calm and happy.



Their nest is well hidden

However, while they are guarding their nest, they become very nervous. With an anxious air, they hop from bush to bush, taking good care never to get very far away from the nest. If any one approaches their home, they cry "Chip, chip" in a musical voice. By these actions they often give away the secret they are trying so hard to keep. Poor little Mother and Father Song Sparrow, no wonder they are so anxious and nervous. Their eggs and young babies are often found and eaten by blue jays, crows, or hawks. Because of this, they often have as many as three families in one year.

Although the song sparrows are very shy, they are one of our dearest bird neighbors. If you want to make them your friends, place crumbs in your garden or make a bird bath for them. They love damp places, you know, and will often visit you in your garden or around your bird bath. When they sing their sweet duet you will be glad to call them your bird friends.

Underline the correct word.

1. The song sparrows make their nests in
trees, bushes, hollow logs.
2. They are good
singers, runners, fliers.
3. The song sparrow is fond of
company, fighting , shady spots.
4. Mrs. Song Sparrow's eggs are often stolen by
humming birds, blue jays, robins.
5. The song sparrow is a little larger than the
meadowlark, quail, chickadee.

Bird Homes

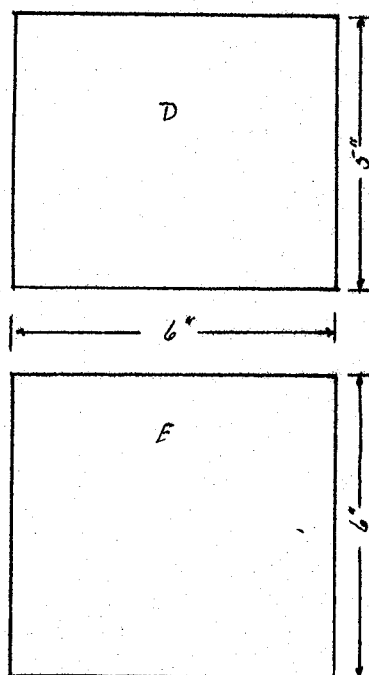
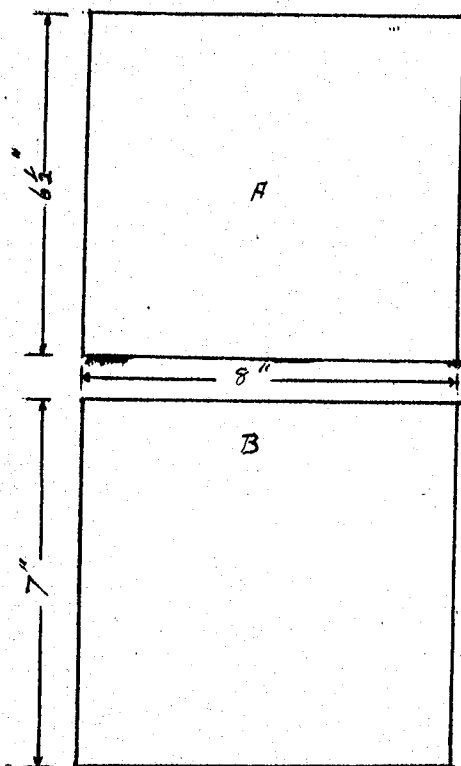
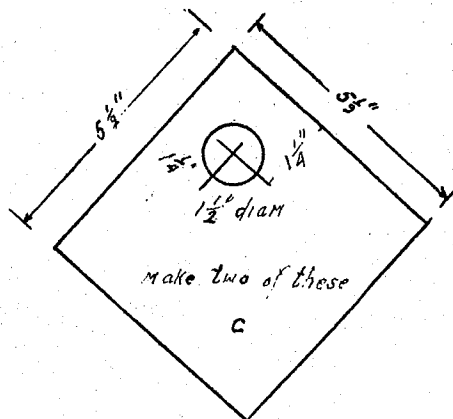
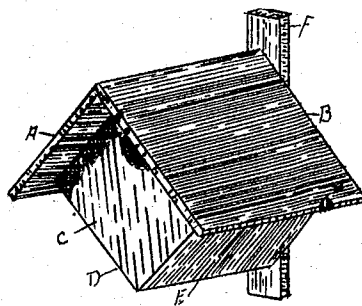
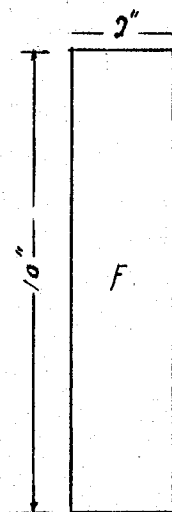
Now that you have met some of our California bird friends, perhaps you would like to become better acquainted with them. Boys and girls receive much pleasure in building bird houses, drinking places, and baths for their spring visitors. At the same time they are offering valuable assistance and protection to the birds.

There are a number of birds who are happy to find a home ready for them when they arrive from the south. However some birds are particular as to the type of house they wish to rent for the spring. They like their homes to be as near like their natural nesting places as possible.

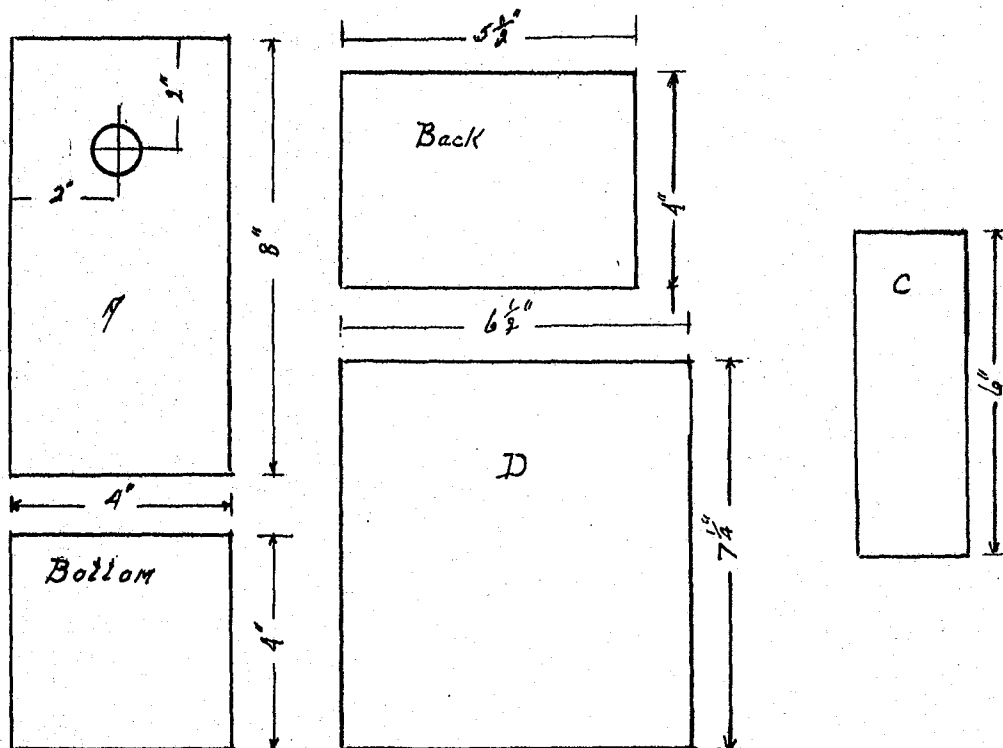
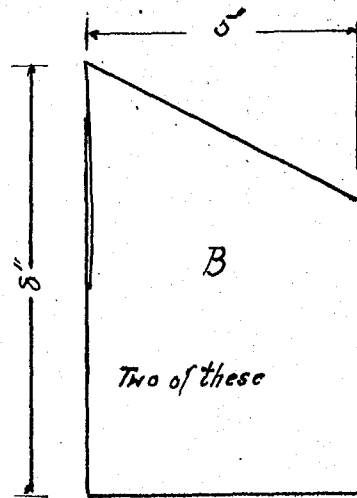
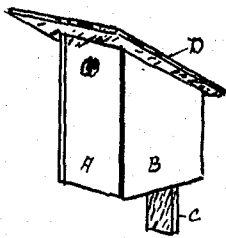
Do not paint the houses with bright colors, for Mr. and Mrs. Bird do not want people to notice their home. They prefer colors of green and brown. For the same reason it is better to use old material in building bird homes. Old store boxes are very good to use as building material.

Here are a few plans of bird homes that are easy to make.

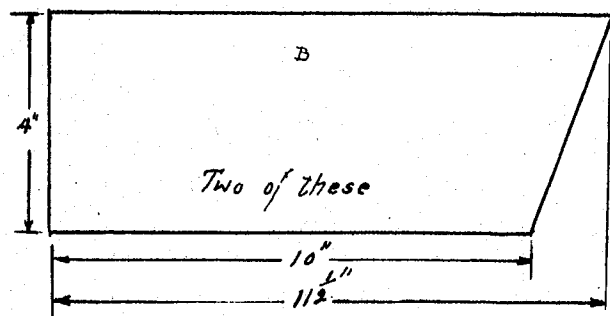
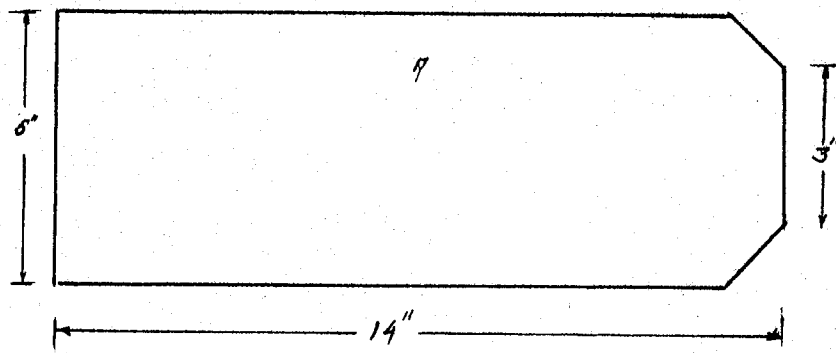
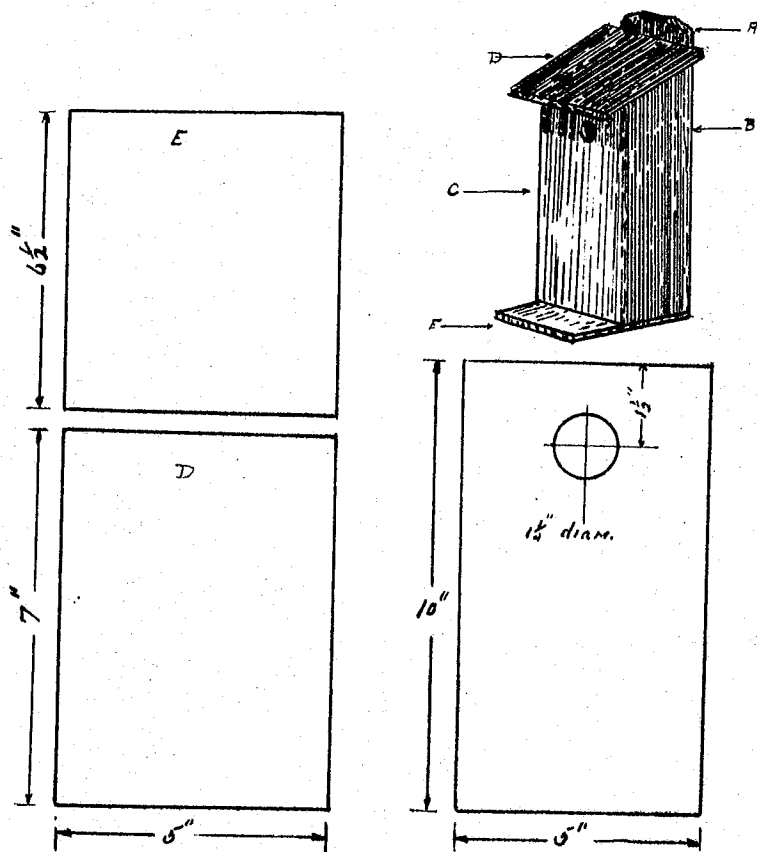
Drawings
made from
Bird House Architecture
by
L. H. Baxter



Blue Bird House



Wren House



Box
for
Wrens

Bibliography

I. Primary Sources

A. Books

- Audubon, John James, Ornithological Biography.
2 vols. A. & C. Black, Edinburgh, 1834.
An original account of the habits of the birds
of the United States.
- Bendire, Charles, The Life History of North American Birds. 2 vols. Smithsonian Institute, Washington, D.C., 1895.
An original survey of North American birds.
- Bent, Arthur Cleveland, The Life History of North American Gulls and Terns. 1st ed. Smithsonian Institute, Washington, D.C. 1921.
Edited by Arthur Bent. This is a continuation of his work on the life history of North American birds.
- Burroughs, John, Bird Stories. 1st ed. Houghton, Mifflin Co., Boston, 1911.
Sketches of bird life selected from the works of Burroughs and brought together for young readers.
- Burroughs, John, Wake Robin. 3rd ed. Houghton, Mifflin Co., Boston, 1895.
Authentic facts presented in Burrough's interesting manner.
- Chapman, Frank Michler, Bird Life. 6th ed. D. Appleton & Co., New York, 1928.
A general study of birds, their place in nature, characteristics, and relation to men.
- Chapman, Frank Michler, What Bird Is That? 1st ed. D. Appleton & Co., New York, 1920.
A simple but authoritative bird guide.
- Dawson, William Leon, The Birds of California. 1st ed. 4 vols. South Moulton Co., Los Angeles, 1923.
A complete, scientific, and popular account of the birds of California.
- Forbush, Edward Howe, Useful Birds and Their Protection. 4th ed. Mass. State Board of Agriculture, Boston, 1913.
Descriptions of birds of the east.

Grinnell, Joseph, Bibliography of California Ornithology. 1st ed. The Club., Santa Clara, 1909.
An index to authors on California ornithology.

Grinnell, Joseph, Distributional List of the Birds of California. 1st ed. The Club, Hollywood, 1915.
An index to the birds of California.

Grinnell, Joseph, Pocket List of the Birds of the Berkeley Campus. 1st ed. University of California Museum of Zoology, Berkeley, 1925.
A list of the birds of the San Francisco Bay district.

Grinnell, Joseph and Bryant, Harold, Game Birds of California. University of California Press, Berkeley, 1918.
A detailed study of the California game birds, especially useful for the study of the quail.

Job, Herbert K., The Sport of Bird Study. 1st ed. Outing Publishing Co., New York, 1908.
A book for active people, profusely illustrated with photographs from life by the author.

Keeler, Charles A., Bird Notes Afield. 2nd ed. D. P. Elder & M. Shepard, San Francisco, 1907.
A series of essays on the birds of the Pacific coast, with a field check list.

Reed, Chester A., North American Birds' Eggs. 1st ed. Doubleday, Page & Co., New York, 1904.
A general reference and guide in the study of birds' eggs.

Ridgway, Robert, Birds of North and Middle America. 1st ed. Washington Government Printing Office, Washington, D.C., 1901.
A descriptive account of the birds of America.

B. Periodicals

Auk. Published for the American Ornithologists' Union. New York.

April 1894. Ridgway, R., "Geographical Variation in *Sialia Mexicana* Swainson."

April 1896 Merriam, F., "Some Birds of Southern California."

Condor. Published by the Cooper Ornithological Club, Hollywood, California.

- July 1902. Noack, H., "Vocal Powers of the Yellow-billed Magpie."
- March 1903. Sharp, C., "Some Unusual Nests of the Bulloch Oriole."
- Sept. 1910. Grinnell, J., "An Additional Song Sparrow for California."
- July. 1915. Swarth, H., "Record of Specimens of Screech Owl."
- July 1916. Hansen, H., "The Western Robin Nesting in Golden Gate Park."
- May 1920. Hunt, R., "Nuptial Flight of the Anna Hummingbird."
- Sept. 1922. Dickey, D., "The Mimetic Aspect of the Mocker's Song."

C. Pamphlets

Proceedings of the Academy of Natural Science at Philadelphia.

- Oct. 1846. Gambel, W., "Remarks on Birds Observed in Upper California."
- April 1847. Gambel, W., "Remarks on Birds Observed in Upper California."

Teachers' Bulletin #9. California State Division of Fish and Game. Sacramento, 1928.
Libby, G., & Bryant, H., "Bird Study for California Schools."

United States Department of Agriculture. Biology Survey Bulletin. Washington, D.C.

- 1900 Bul.#13 Beal, F., "Bobolink, Blackbirds, and Grackles."
- 1905 Bul.#21 Judd, S., "The Bob-White and Other Quails of the U.S. in Their Economic Relations."
- 1907 Bul.#30 Beal, F., "Birds of California in Relation to the Fruit Industry."

- 1910 Bul.#34 Beal, F., "Birds of California in Relation to the Fruit Industry." Part II.

University of California Publication of Zoology.

- Dec. 1908. Grinnell, J., "Biota of the San Bernardino Mountains."
Feb. 1918. Swarth, H., "The Pacific Coast Jays of the Genus *Aphelocoma*."
May 1918. Grinnell, J., "The Subspecies of the Mountain Chickadee."

II. Secondary Sources

A. Books

- Abbott, Charles C., The Birds About Us. 1st ed. Lippincott, Philadelphia, 1895.
A brief account of variety and character of bird life, written to arouse interest in the protection of birds.
- Alexander, Wilfrid B., Birds of the Ocean. 1st ed. Putnam, New York, 1928.
A guide to the identification of all seabirds.
- Allen, Arthur A., The Book of Bird Life. 1st ed. D. Van Nostrand Co., New York, 1930.
Outlines the underlying principles that govern the actions of birds, and suggests methods of study.
- Bailey, Florence M., Birds Through An Opera Glass. 1st ed. Houghton, Mifflin & Co., Boston, 1900.
A general account of eastern birds. Many of the chapters are a revision of articles published in Audubon Magazine in 1886.
- Bailey, Florence M., Birding On A Bronco. 1st ed. Houghton, Mifflin Co., Cambridge, 1896.
Sketches of California birds.
- Ball, Alice E., Bird Biographies. 1st ed. Dodd, Mead & Co., New York, 1923.
A guide book for beginners which describes and identifies one hundred and fifty of the common birds of eastern United States.

- Baxter, Leon H., Boy Bird House Architecture. 1st ed. Bruce Co., Milwaukee, 1920.
This book represents Mr. Baxter's experiences with boy architects. Various designs for bird houses are included.
- Baynes, Ernest H., Wild Bird Guests. 1st ed. E. P. Dutton & Co., New York, 1915.
A general survey of common birds, written to foster interest in them and thus protect them.
- Cheney, Simeon P., Wood Notes Wild. 1st ed. Lee & Shepard, 1891.
Notations on bird music, with general facts concerning birds.
- DeGroat, Herman C., Bird Studies for Home and School. 1st ed. De Groat, Buffalo, 1911.
Presents series of simple lessons on sixty common birds.
- Dixon, Royal, Human Side of Birds. 1st ed. Frederick A. Stokes Co., New York, 1917.
Interesting study of birds' life, point of view, and destiny.
- Doubleday, Nellie Blanchen, Bird Neighbors. 5th ed. Doubleday, Page & Co., New York, 1898.
Accurate and reliable information about common birds given in popular and accessible form.
- Dugmore, Arthur R., Bird Homes. 3rd ed. Doubleday & McClure Co., New York, 1905.
The nests, eggs, and breeding habits of the land birds breeding in the eastern United States, with hints on rearing young birds.
- Eckstrom, Fannie H., The Woodpeckers. 1st ed. Houghton, Mifflin & Co., Cambridge, 1901.
Detailed study of woodpeckers.
- Eliot, Willard A., Birds of the Pacific Coast. 2nd ed., G.P. Putnam's Sons, New York, 1923.
Brief account of distribution and habitat of one hundred and eighteen birds that are more or less common to Pacific Coast and British Colombia.

Gilmore, Albert F., Birds of Field, Forest, and Park. 1st ed. Page & Co., Boston, 1919.
A study of the beauty and value of our wild bird life.

Grinnell, George B., American Game Bird Shooting. Forest and Stream, New York, 1910.
Deals with upland shooting of those birds commonly sought with dogs.

Hoffmann, Ralph, Birds of the Pacific States. 1st ed. Houghton Mifflin Co., Cambridge, 1927.
Biographies and descriptions of four hundred species, with especial reference to their appearance in the field.

Hudson, W.H., Birds in Town and Village. Dutton, New York, 1920.
Sketches of birds done with intimate understanding of their habits and temperaments.

Lea, John, The Romance of Bird Life. 1st ed. J.P. Lippincott Co., London, 1909.
Discussion of common birds' courtship, sport, play, journeys, and other interesting aspects of their life.

Meyers, Harriet W., Western Birds. 2nd ed. MacMillan Co., New York, 1923.
A review of the birds of the western coast.

Miller, Harriet Mann, Bird Ways. 2nd ed. Houghton Mifflin Co., Cambridge, 1896.
Observations of the author on common birds.

Miller, Harriet Mann, The Bird Our Brother. 1st ed. Houghton, Mifflin Co., Cambridge, 1908.
This book is intended for the general reader, and brings into compact form information about birds.

Payne, Raphael S., The Baltimore Oriole. 1st ed. Norman Remington Co., Baltimore, 1923.
A general discussion of the Baltimore Oriole, with an introductory biographical sketch of John Audubon.

Shoffner, Charles P., The Bird Book. 1st ed. R. Manson, New York, 1929.
Written especially for teachers. A general study of birds, with questions and answers for pupils.

Torrey, Pradford, Everyday Birds. 1st ed.
Houghton, Mifflin Co., Cambridge, 1901.
Elementary studies of common birds.

Torrey, Pradford, Birds in the Bush. 8th ed.
Houghton Mifflin Co., Cambridge, 1900.
Interesting account of the common birds of
the east.

Trafton, Gilbert H., Bird Friends. 1st ed.
Houghton, Mifflin Co., Cambridge, 1916.
A complete bird book for Americans, especial-
ly written for teachers.

Wheelock, Irene G., Birds of California. 1st ed.
McClurg & Co., Chicago, 1904.
An introduction to more than three hundred com-
mon birds of the state and adjacent islands with
a supplementary list of rare migrants, acciden-
tal visitants, and hypothetical sub-species.

Wilbur, Harriette, Bird Gossip. 1st ed. G.W.
Jacobs & Co., Philadelphia, 1920.
A charmingly written group of stories of eastern
birds.

B. Periodicals

Bird Lore.

May 1930. Kip, Herbert, "Concealment in Nest
Building." 181-184.

July 1930. Devoe, Alan, "Baby Birds Leave
Home." 258-261.

Hunter, W.L., "Boy Interest and the Bird House
Problem," Industrial Education Magazine,
Mar., 1929, 340-341.

Industrial Arts and Vocational Education.

Mar. 1929. Gilmore, C., "Bird House Build-
ing." 106.

Reeks, E., "Inviting Bird Bungal-
ows," 106-108.

Feb. 1931. Baxter, J., "Bird House Building."
58-59.

Mar. 1932. Hanel, A., "Interesting Wren House." 96.

Nature Magazine

Mar. 1929, Preble, A., "Flower Pot Bird House." 183.

Feb. 1930. Stafford, C., "Model Home." 86.

Salomonsky, V., "Bird House Architectural Drawings," House Beautiful, Mar., 1931, 278-279.